This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

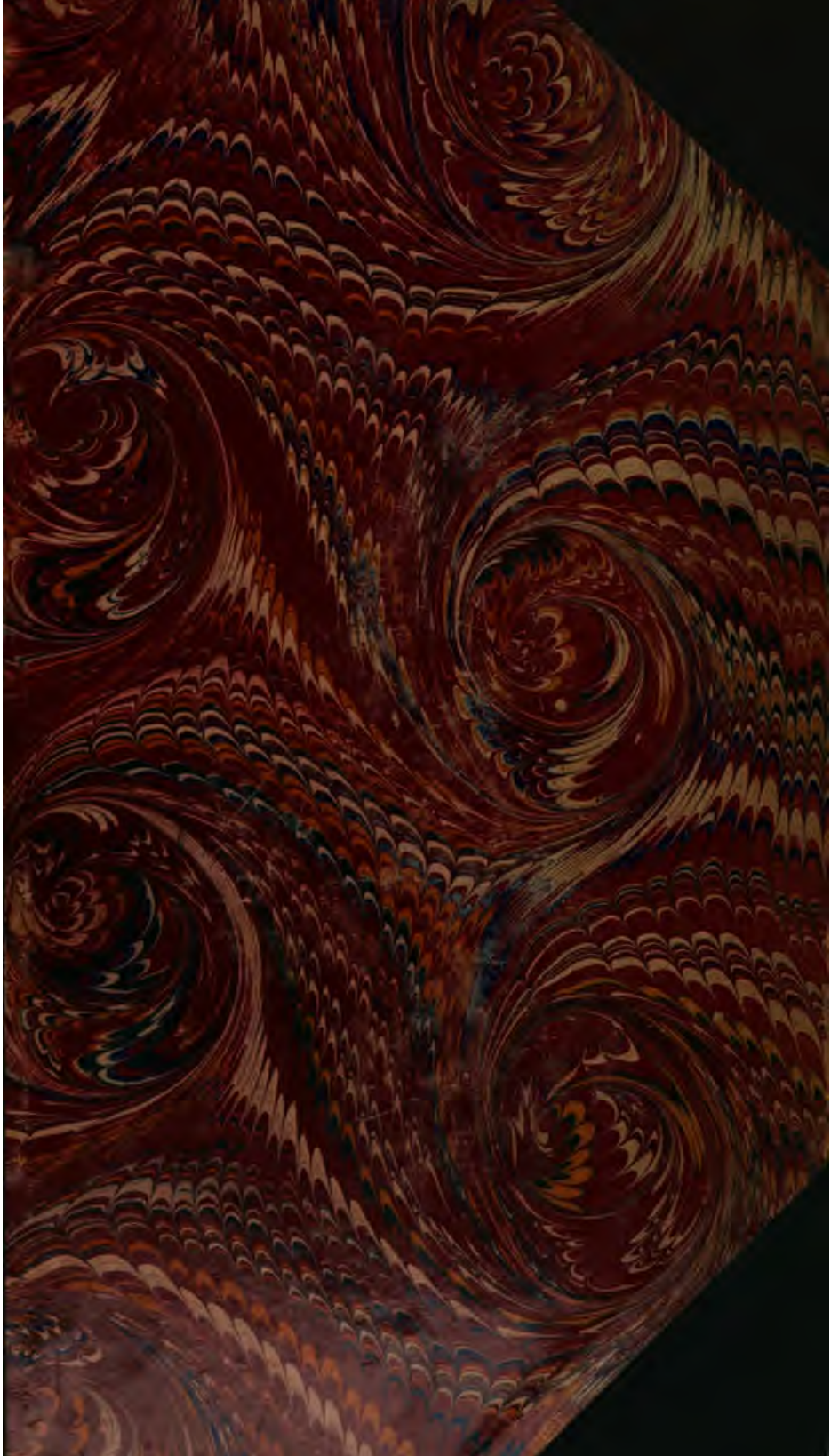
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`



BIBLIOTHECA · BOSTONIENSIS · MEDICINAE
SERVAT · ET · DOCET
FVNDATA
MDCCLXXX
EX DONO

THE

AMERICAN

VETERINARY JOURNAL,

DEVOTED TO THE

DIFFUSION OF VETERINARY KNOWLEDGE.

VOLUME II.

EDITED BY

GEORGE H. DADD, V. S.,
PROFESSOR OF ANATOMY AND PHYSIOLOGY IN THE "BOSTON VETERINARY INSTITUTE," AUTHOR OF "ANATOMY AND PHYSIOLOGY OF THE 'HORSE,'" "MODERN HORSE DOCTOR," &c., &c.

BOSTON:
PUBLISHED BY S. N. THOMPSON & CO.
1857.

BOSTON MEDICAL
FEB 271908
LIBRARY.

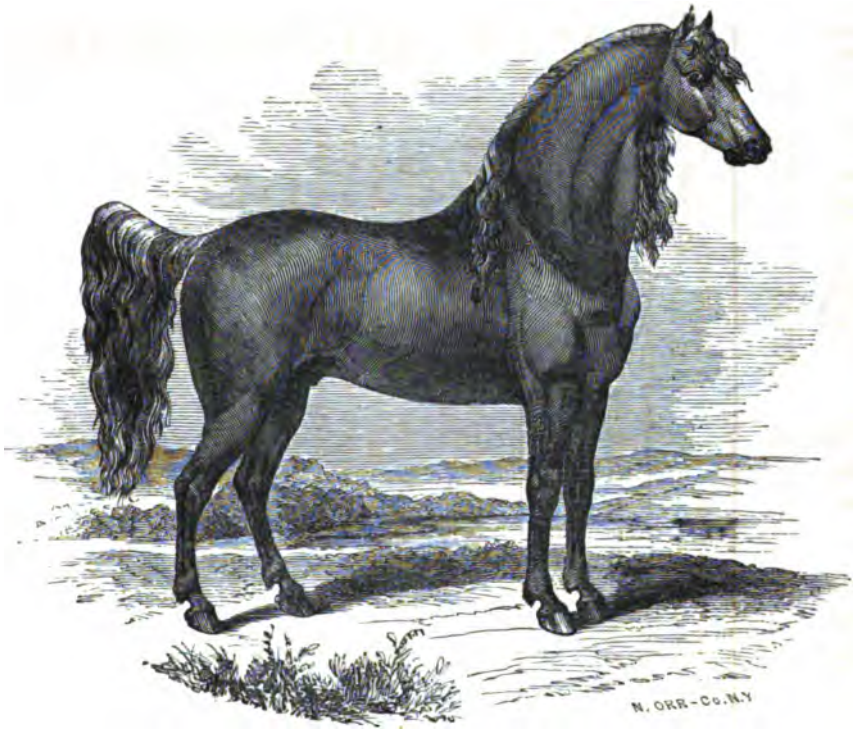
CATALOGUED
FEB 27 1908
E. H. B.

9989

CONTENTS.

Remarks on the Functions of the Liver, and the Causes of Derangement, 1
Fractures in the Horse, 4
Destruction of Rats, 5
Paralysis Occurring in the Human Body: its Causes, &c., 6
Cough in Horses, 7
Cases of Poisoning by Duboy's Rat Exterminator, and by Garget, 8
Coffee as a Deodoriser, 12
Fashion and Disease, 13
Wonderful Fountains, 14
Astonishing Effects of Guano, 15
Relative Profits of Milk and Butter, 15
Estimated value of Sheep and Wool, 16
Success in Life, 16
Medical Associations, 17
Reproductive Powers of Filth, 20
Fast Horses Agriculturally Considered, 21
Mongolian Custom, 21
Success, 23
Ruptured Bladder in the Horse, 24
Death of a Celebrated Horse, 27
Cases of Ruptured Liver, 28
Hay for Cows in Summer, 29
Prospectus for 1857, 30
Editorial Currycombs, 31
Editors Drawer, 31
Rough Notes on Contraction of the Hoof, 33
To stop Bleeding from the Cavity of an Extracted Tooth, 34
Receipe for Mending Broken China, 34
"Black Hawk"—Remarks on his Death, 25
A Large Flock of Sheep, 36
On the Sensitive Faculty of a Horse's Foot, 36
Health of Americans, 57
Scientific Experiment on Dogs, 38
Stringhalt, 38
Charles Lamb's Opinion of Water Cure, 38
Letter from Capt Oliver, of Lawrence, 39
Mortality among Hogs, 42
Cleanliness, 43
Unrestrained Sale of Poisons, 45
Rules for Restoring the Drowned, 45
Cement to mend Earthen and Glass Ware, 45
Rupture of the Intestines, 46
Animal Life, 17
High Prices for Horses, 48
On Soundness, 49
Eating of Human Flesh by Swine, 52
Apopletic Hydrocephalus, 53
Scandal, 55
Blood and Bog Spavin, 56
Cows for Work, 57
On the Sale of Bad Meat, 58
My Horse, 59
Reproduction from Filth, 60
Medical Witness' Expenses, 60
Schoolmaster and Pupils, 61
Milking, 61
Glass Milk Pans, 61
Items for All, 62
Editor's Drawer, 63
Appointment of the Editor, 64
Death of a Veterinary Surgeon from Absorption of Animal Poison, 65
Deception in Horse-Dealing, 73
The Hog Cholera, 74
Value of Race Horses, 75
On Parturient Fever in Ewes, 76
Lameness in Horses—Sandcrack. 79
Farinaceous Aliment from Straw, 86
Case of General Congestion, 87
Woodburn Stud Farm, (Woodford County, Ky.,) 88
Clinching Horse Shoe Nails, 89
The Remains of Black Hawk, 90
"Query for Subscribers, or Dr. Dadd," 91
Milk as a Manufacturing Ingredient, 91
Egyptian, or Mummy Corn, 92
Death of Black Warrior, the War Horse, 92
A Bad Habit, 93
Micellaneous. 94
Editor's Drawer, 96
Death of Black Hawk, 97
Self-Culture, 100
The Horse, 101
Empiricism, 102
Tricks and Habits in Harness Horses, 103
Case of Pericarditis, 106
Ruptured Liver in the Horse, 107
Case of Lithotomy in the Horse, 108
Monkey Civilization, 109
On the Production of Tænia, or Tape Worm, considered in relation to Public Hygiene 110
Premium for Agricultural Societies, 110
Paralysis in the Horse, 111
Annual Meeting of the Corporation of the Boston Veterinary Institute 112
Rupture of the rectum 113
Treatment of Ailing Horses, etc., 114
Case of Ruptured Liver, No, 5, 117
To our Readers, 117
Tenotomy.—Division of the Flexor Tendons, for "Sprung Knees," 118
Foot Rot in Horses.—A Popular Medical Error 120
Remarkable Horse, 121
Importance of Veterinary Science, 122
Sending Corn Fodder abroad, 133
Items for the Sporting World, 123
California Sporting News 123
Micellaneous, 125
Answers to Correspondents 127
Editor's Drawer, 128
Ventilation—Composition of the Atmosphere—Oxygen, Nitrogen, and Carbonic Acid Gas, 129
The Fastest Time by Horse Flesh, 131
Weight of the Body and Vicera of an Elephant, 132
A Horse with a Cork Leg, 132
Trotting at Agricultural Fairs, 133
Ventilation, 135
Starting and Shying Horses, 136
Instinct of the Horse, 138
Successful Operation for Ventral Hernia, 139
The Horse 140
High Price for a Jack, 142
Mal-Presentation of a Calf, 143
Race of One Hundred Miles, 144
Local Injury to a Horse, 146
Hints in View of Studying Human Physiology, 148
Breaking of a Baulky Horse, 149
Principals of Law, Applicable to Veterinary Surgeons, 150
Cows Dying from Eating Hair, 151
Epizootic among Cattle, 151
Rcollections of English Race Horses—Eclipse, 152

Researches on the Cause of the Fluidity of the Blood, 153
Tuberculosis, 154
Importance of Veterinary Science, 155
Lampas in Horses, 156
Good Stock 156
Items for the Sporting World, 157
Micellaneous, 158
Editor's Drawer, 158
Law of Sympathy, and the Sympathetic Relations which exist in the Animal Economy, 161
Cattle Murrain—Nature and Treatment, 164
The Australian Horse, 167
The Affection of the Horse, 169
A Case of Palsy in a Mare, 170
The Morbid State denominated Pneumatoses, 172
The Utica One Hundred Mile Race, 180
Carbonic Acid Gas, 181
Thorough Bred Breeding Cattle, 183
Escutcheons, 184
Case of Mal-Formed Limb in a Colt, 185
The Composition of Milk at various times of the Day, 186
A Horse Story, 187
The $800 Trot, 187
Young Morrill and Ethan Allan, 187
The Camel Experiment, 188
Loss of Hogs by Disease, 188
Ages of Mr. Ten Broeck's Horses, 188
Items for our Subscribers, 189
Miscellaneous, 189
Horn-Ail, 193
A very interesting article on Mules, 198
Cæsarean Operation—Epidemic Catarrh —Tracheotomy, 201
A famous Horse, 202
Observations on some of the Deformities of the Limbs of Horses, 203
Proportions of Eclipse, 206
On Cruelty to Animals, 212
Puerperal Fever mistaken for Horn-ail —Deplorable Event, 215
Remarks on the Publication of Receipes, 216
A Strange Match—Oats vs. Time, 218
How to rid Animals and Plants of Vermin, 219
Obituary of the Horse Columbus, 219
Spare the Calves, 220
Racing in Europe, 221
Micellaneous, 221
Editor's Drawer, 224
Horn-Ail, 225
Thoughts on Veterinary Science, 228
Fallacy of the Chemical Theories of Food, maintained by Liebig and Carpenter, 231
What Ails my Horse ? 232
Ventilation, 237
Attachment of Animals for each other, 239
Are Spavin and Ringbone Curable? 240
Manufacture of Horse Shoes, 242
On Cow-Pox, or Primitive Vaccination, 244
Honorary Degrees Conferred, 244
Canine Curtailment in Mexico; Hospital for the cure of Diseased Quadrupeds, 245
The Horse. 246
A Cow Case; Mules instead of Horses; Hogs in Kentucky, 247
Remarks on the Publication of Recipes, &c., 248
Sulphurised Oil Paint; Shall we eat our Horses, 252
Items for the Sporting World, 253
Answers to Correspondents, 255
Editor's Drawer, 256
Ventilation, 257
Chemical Speculations, 260
On the Contagion of Itch or Mange, 262
Tail-Ail, 263
Hog Cholera, 265
Interesting Chemical Discovery, 265
Professor Simonds' Journey in search of the Cattle Murrain, 267
Are Spavin and Ringbone Curable, 269
Boston Veterinary Institute, 275
Inflammation of the Brain, 278
Corns in Horses, 280
New Bedford Yacht Race, 285
Answers to Correspondents, 285
Goodwood Races, 287
Ventilation, 290
On the Form of Horses, 291
An epitome of Dr. Forbes on Nature and Art in the cure of Disease, 293
A rich Joke, 301
The Great Eastern, 302
A Good Plan of Shoeing Horses, 303
Who would not be a Veterinary Surgeon, 304
Remarks on the Publication of Recipes, 305
Case of Ruptured Stomach of the Horse, 309
What is Spavin, 311
Dislocation or Luxation of the Patella, 314
Late importations, 315
Wollaston Park, 317
Sporting Items, 318
Editor's Drawer, 320
Slippery Pavements and Fast Driving, 321
Introsusception in the Horse, 326
Human Combustion, 329
Letter from a Correspondent, 330
A Horse Pumping Water, 331
Paracentesis Thorasis, 332
Kindness to Animals, 333
A Good Chance for a Veterinary Surgeon, 334
Cod Liver Oil, 335
A Contrite Man, 337
Sheep Raising, 338
Inoculating Cows for the distemper, 340
Pennsylvania Medical University, 340
A case of Hysteria Terminating Fatally, 341
Prof. Agassiz on Civilization under Water, 343
Peculiarities in Horses, 344
A valuable Cow, 346
Answers to Correspondents, 347
Massachusetts State Fair, 349
Miscellaneous, 351
Editor's Drawer, 352
Introductory Lecture, 353
Mares Versus Geldings, 347
Rules for the Selection of Male Animals for Breeding. 368
Cases of Fracture, 369
Accommodation for Horses, 371
Ladies on Horseback, 373
Hints for the Farmer, 375
Veterinary Science, 376
Sale of Sheep in California, 376
To Manage a Rearing Horse, 377
Longevity of Animals, 377
The American Horses in England, 378
Song of the Camp, 379
"Roaring" 380
Miscellaneous, 382
Notice to Subscribers, 384



"GIFFORD MORGAN, JR."

See page 20.

THE PROPERTY OF HON. H. B. MUNSON, SEYMOUR, CONN.

Standing at present at Mont Rose, Iowa.

(From Linsley's Work on Morgan Horses, published by C. M. Saxton & Co., N. York.)

BOSTON MEDICAL
FEB 27 1908
LIBRARY

THE AMERICAN

Veterinary Journal.

DEVOTED TO THE DIFFUSION OF VETERINARY KNOWLEDGE.

Edited by GEORGE H. DADD, Veterinary Surgeon.

Published by S. N. THOMPSON, 97 Union Street.

PRICE, ONE DOLLAR PER ANNUM.

VOL. II. BOSTON, MASS., JANUARY, 1857. NO. 1.

REMARKS ON THE FUNCTIONS OF THE LIVER, AND THE CAUSES OF DERANGEMENT.

It was formerly supposed that the function of the liver was merely to eliminate bile, but modern physiologists have discovered that the blood itself is changed while circulating through that gland. It elaborates fibrine from albumen and fat from sugar—the liver stores up fatty matter so that should the food be deficient in fat, the liver has to supply it. It is very curious to notice the peculiarity in the *circulation* of the liver: it is supplied like other organs with arterial blood, for its own support, and it also receives an immense quantity of venous blood through veins, commencing on the gastro-intestinal cavity; terminating in a vessel called *Vena Porta*. This vessel on entering the liver ramifies in various directions like an artery, and ultimately terminates in the veins peculiar to the liver. So that the blood instead of flowing directly from the stomach and intestines to the heart, is made to circulate through the liver, and thus various transformations are effected. It must, therefore, perform the double function of secretion and excretion; secretes bile, and excretes carbon and hydrogen from the system. Should an animal labor under diseased lungs, he may under proper medical treatment recover, provided the liver be healthy: it can for a time eliminate carbon and hy-

drogen, but instead of passing off as they do from the lungs in the form of carbonic acid, they accumulate in the liver in the form of fat, or else the liver increases to an extraordinary size. In Stratsburg they prepare a favorite dish from the livers of geese artificially enlarged, by the cruel process of depriving them of light and liberty, confining them in a warm room, and stuffing them with food; we find that under such barbarous management there is a disproportion between the oxygen respired and the carbon taken in the form of food. The respiration which active exercise increases and rest diminishes, are, now that the animal is confined, slow and uniform, the lungs fail in eliminating carbonic acid; and hence carbon and hydrogen are driven back to the liver by means of venous circulation. An excess of carbonaceous material in the liver is liable to result in jaundice: which is a simple functional derangement of that organ. It occurs generally in the warm months, and is usually sudden in its attack. Among the most prominent symptoms are high colored urine; yellow tinge of the visible surfaces; languid pulse, and slow action. If the liver be the seat of inflammatory action, the pulse will be quick and bounding; respiration hurried; the patient feverish; and pressure over the region of the liver elicits symptoms of pain.

If simple functional derangement exists unchecked for any length of time, it leads to organic lesions and structural disease when the bile accumulates it is very apt to thicken and produce gall stones or calculi, if these accumulate in the gall ducts, the subject, unless relieved, soon dies. Diseases of the liver have hitherto been considered the bane of tropical climates, but they are equally prevalent in cold and moist regions; horses and men are as frequently attacked with it in *Northern* as in Southern latitudes. The celebrated sheep breeder, Bakewell, knew that early disturbance of the liver led to the accumulation of fat; and in order to derange the liver he was in the habit of folding his sheep in wet pastures.

Now, the English Agriculturists are well acquainted with the fact that water meadows have a tendency to produce that almost incurable disease termed rot. Now, *rot* originates from a diseased liver, and in the early stages of it, the animal accumulates fat very fast; so that by rotting sheep he was able to bring fat ones early to market, and thus steal a march on his more conscientious neighbors.

Now, this state of the liver termed rot is associated with the existence of parasites, termed *distoma* hepaticum, commonly denominated flukes, and these parasites are considered the cause of rot, when, in fact, they are the results of deranged functions of the liver. The rot, therefore, is not local. It can be produced in any country by exposing animals to the debilitating effects of moisture and neglect. It is not only prevalent in England, but also in

Asia, Africa, and America. In Egypt, on the receding of the Nile, it spreads to a fearful extent. In warm climates the livers of men and animals become diseased, not so much from local causes, as from stimulating drinks and diet. If a man attempts to consume the same amount of food, in *warm*, that he has been accustomed to in *cold* climates, he is apt to become bilious, and this is a premonitory indication of perverted function of the liver. A very important fact has lately been discovered in reference to the function of the liver. A French chemist has ascertained that one function of the liver was to produce sugar out of the animal organism, this is the secret of the formation of the fat. Chemically speaking, sugar and fat are nearly allied, the chief difference being that one contains a small portion of oxygen.

In this State many valuable animals are lost from organic disease of the liver, the origin of which may, in many cases that have come to our knowledge, be traced to simple functional derangement, which has existed for some time, its symptoms are either unobserved, or if perceived, disregarded. Some of the subjects that have been put under our care, for the treatment of diseased liver, had a strong predisposition for the malady; their color being black; temperament bilious; such horses are the ones that require special attention whenever they appear to be "*ailing*." It is remarkable to observe, however, that many horses of a temperament, diverse from the *bilious*, are often attacked with organic and functional derangement, of the liver, and this peculiarity can only be accounted for on the ground that the horse has no gall bladder—no receptacle, such as is found in cattle, for the accumulation of *bile*; consequently, the horse's liver must be an active organ; especially when the animal is permitted to make but *one* meal per day, and *that* meal occupies a period from *sunrise* to *sunset*, and daily and weekly continues to occupy no less time. The consequence is, the organ is over worked, and is the seat of local exhaustion. The liver requires regular periods of rest, to recover from fatigue or functional duty; yet, how is it possible to secure the same, when a horse is permitted to make a perpetual hay-rack and corn-bin of his stomach? The Herculean feat of converting a hay-stack and corn granary into bone, muscle and nerve at the rate of 2.40, is beyond the physiological capacity of any vital organ; therefore, in the language of the sailor, the *vessel* sinks from *local* inundation—the liver caves in from, over-work; too *much* food, and too little discretion. A hard pull on an omnibus, or a similar feat in a mar keter's wagon, would be the very best medicine in the world for a plethoric horse, or one predisposed to hepatic derangement.

FRACTURES IN THE HORSE.

WRITTEN FOR THIS JOURNAL, BY R. JENNINGS, V. S.

It must be gratifying to all lovers of man's most faithful servant, the horse, to witness the rapid progress made in Veterinary Science within the last few years, in the United States, pressing forward as she is with all the ambition of a youthful hero, striving to accomplish some great end, reaping rich laurels in her onward course, and illuminating the whole world with her scientific attainments. What she has been, we need not revert to—what she now is, seems to be a star gradually increasing in brilliancy. And what she will be, leads us into the bright future, when scientific lights shall strive to outshine one another; may hers be the first in magnitude, and the world acknowledge her indebtedness to our science for many blessings she enjoys. Who would have thought a few years since that fractures occurring in the bones of our inferior animals could be successfully treated, particularly those of the horse and the ox? It is not long since that the only remedy for such accidents was a leaden ball, but as science progresses we have to learn that the ball in many cases is better in the barrel. Compound fractures only require their use; fractures of the pelvic, or haunch bones are common, and I would venture to say that nine out of every ten, can be successfully treated: many such cases nature herself will remedy, leaving the animal hip'd, as it is called, or one quarter lower than the other. I have seen so many cases of this kind of fracture, (many of them compound fractures) successfully united that it must indeed be a severe case that I would despair of, though the parts may not be brought in apposition, the bones will unite firmly, and the animal be of good service after, as I have known them to do heavy work three or four years after such an accident occurred. Fractures of the pastern bones, are also manageable, and may be brought in apposition with but little trouble, and retained there by means of the starch bandage, stiffened by small strips of iron and steel; this bandage if properly applied, becomes as firm and hard as a board. Fractures of the tibia (the bone situated between the hock and the stifle) in some cases may also be successfully treated. I have two specimens of fracture of these bones in my private cabinet that have been very firmly united, the bone at the point of union being more dense in structure than at any other part. I have also a specimen where two of the vertebræ have been fractured and again firmly united; this specimen consists of twenty ossified vertebræ, fifteen dorsal and five lumbar, to which the sacrum and illia are firmly united by osseous union, one of the pelvic bones, or ossa innominati having also been fractured and again

united, proving beyond a doubt that nature is a good doctor, and that we can only assist her in performing her work to rid the system of disease. The femur or worl bone, and the humerus or arm, are the most difficult of all to manage, owing to the great muscularity of the parts. I was called to see a bay mare, March 11th, 1856, belonging to Mr. Frank Pelton, a farmer, near Cleveland, Ohio, that had fallen on the ice and fractured the humerus, so as to cause a complete separation and droping of the parts. I considered it a hopeless case, but being a four year old filly, I undertook the treatment of the case, by bringing up the limb, retaining it in its place by means of a bandage, forty yards in length; placed her in slings, and kept her there for five weeks, giving two cathartic balls during that time. The bone is now as firm as ever, and the deformity so slight as not to be noticed, unless attention be called to it. I was informed by her owner, that some two weeks after I had discharged my patient, she jumped four fences in succession, and made her way into the woods without injuring herself in the least. These remarks were prompted from seeing an account of a valuable horse that had been destroyed in Detroit, Michigan; owing to a fracture of the leg, and I trust they may be the means of saving life in, at least, cases of simple fracture.

Cleveland, Nov. 19th, 1856.

DESTRUCTION OF RATS.—Before storing crops, destroy the rats about your premises. The following recipes may be recommended:

1. A correspondent of the *Mark Lane Express* suggests the following plan for the destruction of these vermin: Feed them with flour and a few sweet almonds bruised, and mixed with a small quantity of molasses to form a paste, together with a few drops of aniseed, for five or six nights, until they take it freely, never laying more of the mixture than they will eat up clean; then add a teaspoonful of carbonate of barytes to about a pound of the paste. By using the above composition, the correspondent of the Mark Lane Express says that he has kept his premises clear of rats, at a small expense a year.

2. Place fresh fish in the place of their resort for several nights in succession; and when you find they consume them freely, sprinkle *arsenic* over the fish. Rats are passionately fond of fresh fish, readily eat them, while the poison will speedily give them their quietus.

PARALYSIS OCCURRING IN THE HUMAN BODY: ITS CAUSES, &c.

HARDLY a day passes but it is our unfortunate lot to see a fellow-being laboring under partial, or total, paralysis of some portion of the body. What are its causes?—and are not the remedies within our own reach? Yes! Dr. Connolly in his interesting lectures before the Royal College of Surgeons, (we may remark that an erroneous statement before that august body would receive such a rebuke that it never could find its way into the medical journals, therefore the following may be depended on) stated that he ascertained the causes of paralysis with *certainty* in ninety-six cases. In sixty of them, the malady was ascribed to what we term a moral cause: to losses, anxiety, grief, domestic unhappiness, disappointments and poverty. Intemperance alone was assigned as a cause in twenty cases. The remaining cases arose from exposure to wet, herditary predisposition, abuse of mercury and foul air, causes which are under the controling power of the representatives of the 19th century. In this country paralysis prevails to an alarming extent, among the painters. Now, it assumes the form of hemiphlegia sciatica, tic-doloroux; at other times it comes on in the form of sudden shocks which deprive the person of the powers of speech and voluntary motion. This unstringing of the nerves sometimes arises from breathing the fumes of white lead and from handling putty; the lead, probable, accumulates in the system until that system is saturated, and then arises its specific results. Painters are not over careful while engaged in their dangerous calling, or we should not see so much deformity among them. A good ventilation in their places of business; strict attention to personal cleanliness; and great precaution in the prosecution of their dangerous calling might do much in preventing this dreadful infirmity. It does not require much of any of the preparations of lead to destroy a man; and from what is generally known, the reader will realize that we are capable of absorbing, in a very short time, a sufficiency of this poison to interrupt the vital operations, which, if persisted in must result fatally.

There is a *peculiar* form of colic known to the *faculty;* it attacks individuals with excessive violence; vomiting; pain in the intestinal region; strong convulsive spasms; and a tendency to paralysis of the extremities, are its characteristics. Its victims are the plumbers, painters, glaziers, and the manufacturers of white and red lead. Very few of those engaged in making white lead escape without a severe turn of the painter's colic; and in making red lead, the persons who attend the furnace and stir the metal are generally

great sufferers. When dysentery prevailed in the Northern army on the frontiers of New York and Canada, it was found that a few grains of sugar of lead acted as a powerful astringent in restraining the flux. In some cases a larger amount was necessary than in others, the consequence was, that these patients afterwards died with torpor or paralysis of the intestines, or some other fatal disease. caused by the lead operation as a poison.

Now, sugar of lead has been, and is now, used as a common application for inflamed eyes—and other superficial inflammatory affections, but it is too dangerous to admit it into the composition of any medicinal preparation. It is an agent that can never be used with any degree of certainty that it will promote the living integrity. It is bad enough, in all conscience, for the miner and painter to inhale its deadly elements, and thus achieve their own early destruction—and multiply widows and orphans. It is a matter of regret that we are often compelled to respire an atmosphere in a newly painted room, charged with lead poison, and thus cater to human infirmities. Yet, after all, it is a still deeper matter for regret that a man should voluntarily take into his system an agent that hath destroyed so many lives, and caused an immense amount of suffering and woe.

In regard to the use of lead as a sedative for inflamed eyes, it bears no comparison to many less dangerous articles; a few drops of acetic acid, mixed in a tumbler of water, is an excellent collyrium.

Persons who are compelled to handle white lead, or to respire the vapor arising from it, or any of its compounds, should partake freely of lemonade.

COUGH IN HORSES.

We once had a horse that had caught a bad cold, and coughed so severely that he could be heard half a mile. All sorts of remedies were rejected, although some might have proved useful, and the following course pursued. The horse was in the first place very carefully and moderately used so as to never produce perspiration. He was carefully blanketed when the weather was cold, (it was about mid-autumn) or when he was in the least degree heated—he was kept constantly on green and succulent food, clover, roots, &c., and was well supplied with plenty of the best water at all times. In a few weeks he was perfectly well. It is an old saying that more depends on the nurse than on the physician, which was verified in this instance.—*Exchange.*

CASES OF POISONING BY DUBOY'S RAT EXTERMINATOR, AND BY GARGET.

WRITTEN FOR THIS JOURNAL BY ARTHUR S. COPEMAN, V. S.

G. H. DADD, Esq.; *Dear Sir:* — Should the following brief account of three cases of poisoning by M. Duboy's "Rat Exterminator," and two cases of poisoning by phytolacca decandra, commonly known as poke or garget root, possess sufficient physiological interest to be worthy of record in your valuable journal, they are at your service. Mr. Van Slyke, farmer, residing at Clinton, seven miles from this city, Nov. 22d, 1856, during my absence, placed a valuable brown five year old horse, under the care of my son, who, on inquiry, elicited the following facts. This horse eat his meal at noon yesterday, had since refused all food and water. His "mate" died a few days since after about forty-eight hours' illness, the early symptoms being similar: he (Van S.) became determined, if possible, to place this horse under my care. He left home a little before noon, after walking the horse about three miles, noticed an "awkwardness in his gait" which continued to increase, so that he with much difficulty reached my stables. Water being offered he made several ineffectual efforts to swallow, nearly all the fluid returning by the nostrils. Pupil dilated, pulse and respiration accelerated, great feebleness, and in a short time paralysis; succeeded by coldness of the surface and extremities; great diminution of the heart's impulse; copious secretion flowing from the nose and mouth. At times he struggles violently, but cannot raise his head, then remains fifteen or twenty minutes "so quiet" that it was only by careful examination we could ascertain he still continued to breathe. He continued in this state of deep *coma* until the evening of the 23d when he died without a struggle.

On intimating my suspicion of poisoning to Mr. Van Slyke, he at once said, "I have been poisoning rats," and a few days prior to the death of the brown horse's "mate," (Nov. 13th,) he prepared, as directed, the contents of nearly a box of Mr. Duboy's "rat exterminator." The horse now sick has during the past few days been fed in the same manger. In subsequently examining this manger he found a large "rat hole" at one end of the bottom, immediately above the "wall plate," upon which the poison was placed, and no doubt, it was carried by the rats up into the manger. Post mortem, twelve hours after death. The mucous membrane of the larynx pharynx, trachea, and bronchia, highly injected and tinged of a deep reddish yellow; the whole respiratory tube filled with dark frothy mucus; stomach nearly empty, containing only about half a pint of partially broken oats and frothy mucus.

Analysis.—The small quantity of food found in the stomach was boiled in dilute nitric acid, 1 part acid, 3 parts water, until evaporated to a syrupy mass. Warm water was poured upon this syrupy extract, and the whole thrown upon a filter. Nitrate of silver added to this fluid gave a white precipitate; (pyro-phosphate of silver.) Portions of the stomach stretched on a board and dried slowly became luminous when rubbed with a piece of "waamed" sand paper.

The following is M. Duboy's formula:—

"Phosphorus, 20 parts; boiling water, 400; flour, 400; melted fat, 400; nut oil, 200; powdered sugar, 250 parts.

The phosphorus is placed in a porcelain mortar, and immediately liquified by the boiling water, the flour is gradually but rapidly added, while the whole is stirred with a wooden pestle, when this has become nearly cold the melted fat, while yet gently warm, is added, the oil next, and then the sugar, the whole being constantly stirred until quite cold. The paste must be kept in well closed vessels, so as to exclude both light and air. Spread very thinly on slices of bread. It is devoured with the greatest avidity."—*Journal de Pharmacie, vol* 15, *p.* 119.

Mr. Van Slyke sent me the box, which contained a few drachms of the poison, and having a "condemned subject," I determined to test its effects. The subject of experiment was an old, worn out "canal horse," laboring under no visible affection except the infirmities of old age, hard work, and harder feed. After twenty hours' "fasting," at 9 o'clock, A. M., gave Mr. Duboy's rat exterminator spread on bread, several thin slices were rolled into a pill and given to the old horse. Not anticipating any immediate effect he was left in his box till half past ten o'clock, when he was found down and unable to rise; pupil dilated, pulse and respiration slightly accelerated. 12 o'clock A. M. He is comatose, but a smart pat with the hand gives rise to strong convulsive twitching, and in a very few minutes there is general spasm of the trunk and extremities, breathing is stertorous, and evidently much impeded by mucus accumulating in the trachea. From this time he scarcely moved a limb and expired about four o'clock, A. M.

Post mortem. The effects observed, closely resemble those seen in the brown horse, the only *difference* being in degree, the action of the poison on the lung not being so *marked.*

Remarks. The above cases indicate that the effects of this poison on the horse are as follows:

1st. In large doses it produces death in eight or nine hours; in small doses death may be delayed two or three days.

2. It acts energetically on the throat (larynx and pharynx.)

3. It exerts a special influence on the lungs, in which it gives rise to general congestion approaching to hepatization.

4. It acts *specifically* on the spinal nervous system, producing *paralysis venenata.*

Poisoning by Poke or Garget Root, (Phytolacca decandra. On Saturday, Nov. 22d, 1856, Mr. Dupred, of this city, gave to a pair of his horses, mixed with their noon food, about one and a half pounds of fresh poke root cut in thick slices. "Thought it was good for the blood."

In the afternoon, one of the animals was observed to be drowsy and sluggish at her work, still at night she eat her food. On the following morning my attendance was requested, and I found her laboring under the following precarious symptoms. The head violently thrust against the wall or rack, rushing forward with the greatest violence if any attempt is made to alter her position; tremor of the limbs and tail; pupil highly dilated, and the power of vision seemed gone; breathing slow but deep; pulse *simply* full. The coma was only interrupted by occasional convulsive movements, accompanied by violent contractions of the extremities. Stimulants were applied to the whole spine; ice to the head and cervical region; an active cathartic and turpentine enema were resorted to But our patient soon became paralyzed, the convulsive spasms continued to increase in frequency and force, and she died at 3 o'clock the following morning. Autopsy five hours after death. Abdomen highly tympanitic; stomach enormously distended, large quantities of the white poke root could be seen mixed with the food. Yet the mucous membrane of the stomach and intestines exhibited *simply* an inflammatory blush. The membranes of the brain and spinal cord were highly injected, the ventricles of the former and theca of the latter contained an unusually large quantity of serous fluid tinged of a deep straw color.

Remarks. This poison evidently exerts a special influence on the brain and nervous system, inducing death by apoplexy and paralysis. The absence of inflammation in the digestive organs is evidently no proof that poisoning may not have occurred. This, like many of the vegetable poisons act on the nervous centres by producing disorders in them which are the results of absorption. The following remarks on phytolacca decandra, "Materia Medica Botanica." "The various effects of different parts of this plant are remarkable. The root is more powerful than the other parts. It seems, however, highly probable that it contains something of a volatile as well as corrosive property which exist throughout the whole plant. This corrosive property appears also to be more solvent in the green than in the dry state of the vegetable, and is less sensible when it is boiled; on this account persons who have been taking decoctions of this plant were not only frequently disappointed, although the decoction was strong, but had to swallow immense doses before any effect could be produced.

I have already stated that Mr. Dupred gave poke root to two horses, both fed at the same manger. The mare that died was an unusually hearty feeder, the other as remarkably delicate, and it is very probable that the former eat most of the root; as the latter did not manifest symptoms of poisoning until Monday morning nearly forty hours after. Nov. 24th, 6 o'clock, A. M., the symptoms as follows: the feed given last night remains in the manger, while standing still, there is evidently a disposition to drowsiness, when the head is elevated; — pupil becomes dilated, and there is a strong disposition to press forward, and if the head be forcibly held up, the fore feet are convulsively advanced with a trotting motion, and she reels from side to side, and nearly falls,—pulse slow and feeble,—bowels torpid.

A dose of physic, tepid mashes, and a few days' rest, relieved her of all *unpleasant* symptoms.

In conclusion, one word on Œstrus Equi: bots.

The bots found in these poisoned horses were carefully examined, and were "all alive and kicking." I have some "bots in pickle," and an "article" in preparation, illustrating the extraordinary tenacity of life in these *harmless* insects.

I remain, Respectfully Yours,

A. S. Copeman.

Utica, New-York, Dec. 9th, 1856.

Editorial Remarks.—Accompanying the above interesting articles, we received an illustrated handbill by which the public are informed that the articles contained in Duboy's Rat Exterminator, "are in themselves very innocent, and contain not a particle of poison, but combined, they create a gas which explodes the stomach, and consequently destroys life in a few hours. As soon as it has affected the stomach, the articles become neutralized and will effect nothing thereafter, so that there can be no danger in its use, under any circumstances." If the *fools* were all dead, M. Duboy would have to resort to some other occupation in order to "*raise the wind*," but the fact is, there are flats enough in the world to support all sorts of imposition. Dr. Copeman's article gives the lie, direct, to the above quotation, and he deserves the thanks of the community for exposing the dangerous character of a popular humbug. If the nostrum is calculated to explode the stomach of a rat, *by distension*, why should it not act in the same manner on that of the horses alluded to by Dr. C? If the article really does possess explosive properties, it might be used for blasting rock, removing obstructions from our harbors, destroying the fleet of an enemy, and for the purpose of "*blowing up*" delinquent subscribers. It is "*very innocent;*" now it strikes us that this is *plastering* a little too

thick, for how can a poison be "*innocent.*" This, however, puts us in mind of the story of "the live lion," stuffed with straw, that never bit anybody, because he always swallowed his victims whole.

In reality, this a serious matter, for many may be induced to purchase this destructive nostrum, for the purpose of *exploding* rats, and afterwards find themselves chief mourners for the loss of their best horses and cattle. We strongly suspect that this "*innocent*" poison (!) contains strychnine also, or corrosive sublimate, for if phosphorus was the active poison it could not destroy crows, for which purpose it is recommended, because, the exposure to light and air, which must necessarily occur, when used for their destruction, would render it comparatively harmless. Some legislation seems necessary for the purpose of putting a stop to this species of deception, yet as the laws now are, Mr. Van Slyke can easily recover the value of his poisoned horses from Duboy.

COFFEE AS A DEODORISER.—Now that the "sporting season" has again come in, we beg to remind sportsmen, and others that fresh-ground coffee is a perfect and safe deodoriser; a sprinkling will keep game fresh and sweet for several days. Clean your game—that is wipe off the blood—cover the wounded parts with absorbent paper, wrap up the heads, and then sprinkle ground coffee over and amongst the feathers or fur, as the case may be; pack up carefully, and the game will be preserved fresh and sweet in the most unfavorable weather. Game sent open and loose cannot, of course, be treated in this manner; but all game packed in boxes or hampers may be deodorised as described. A tea-spoonful of coffee is enough for a brace of birds, and in this proportion for more or larger game. Fresh-ground coffee may be used with advantage in a sick room; a few spoonfuls spread and exposed on a plate, and burned by a red hot iron, is a safe and pleasant fumigator.—*Builder.*

SIMPLE CURE FOR CROUP.—We find in the Journal of Health the following simple remedy for this dangerous disease. Those who have passed nights of great agony, at the bedside of loved children, will treasure it up as an invaluable piece of information. If a child is taken with croup, instantly apply cold water, ice water if possible, suddenly and freely to the neck and chest with a sponge. The breathing will almost instantly be relieved. As soon as possible let the sufferer drink as much as it can; then wipe it dry, cover it up warm, and soon a quiet slumber will relieve the parent's anxiety, and lead the heart in thankfulness to the Power which has given to the pure gushing fountain such medical qualities.

FASHION AND DISEASE.

Fashion has always been considered synonymous with folly, yet thousands who acknowledge this, persist in obeying its behests, because they say it is, after all, but a harmless absurdity. Many a woman, in our own hearing, has thus laughingly excused herself for wearing a bonnet that is no protection to the head, appearing in a low-necked dress at a party, or even appearing in a thin talma when the thermometer was almost at zero.

But the truth is, fashion is any thing but a harmless thing — not only as regards the dress it dictates, but the habits it demands. It is as far from being the innocent tyrant that it is claimed to be as a tallow candle is from being the sun in heaven. The preservation of health should be the first object of dress; the adornment of the person the subsidiary one. And no fashion is rational which does not thus consult utility before mere beauty. Who builds a house with an imposing stone facade, but chambers of reeds, that let in the damp, the night air and the storm? In reality, that only is truly beautiful which has its basis in utility. Yet, modern fashion, so far from regarding this great truth, ignores or violates it continually—as paper-soled gaiters, thin ball dresses, and bare arms and shoulders testify.

So much, however, has been said on fashionable female attire, that we will consider fashion rather in regard to the habits it inculcates than the dress it prescribes. The health of our daughters, wives and sisters is sacrificed quite as much to the vicious customs which fashion inculcates as to the unsuitable costume it tyrannically demands. Of late years, for example, it has come to be unfashionable for women—even those removed by only a single degree from the condition of operatives—to do any work which, in the cant phrase, is "degrading," or "vulgar," or "drudgery." Wives scorn to go into the kitchen, as their mothers did, roll up their sleeves, and make bread; and daughters, if they cannot make calls all the morning, read novels and sleep all the afternoon, and go out to a party in the evening, think themselves miracles of suffering. The consequence is, that between fashionable dissipation, fashionable idleness, and fashionable scorn of wholesome household exercise, there are ten women in bad health now, where there was one in the days of our grandmothers. Nervous diseases, and diseases of the digestive organs have increased beyond all parallel. One-half, if not two-thirds, of the sex, in our great cities, are wanting in that vigorous health, which is necessary for their own comfort, for the happiness of their households, or for sound constitution in their progeny.

Even those women who are forced to earn their own livelihood, suffer from the despotic exactions of fashion—partly in consequence of false pride in the mistress, which makes her ordinarily treat kitchen girls as being of a different order; partly in consequence of the character of the work, and partly from the fashionable disgust at being called a "servant"—for there is a fashion even in this. Thousands of young females are starving, as needle-women, pining for fresh air, and suffering pains in the chest from incessant stooping, when the demand for good house servants is notoriously in advance of the supply, and when health, plenty and comfort might be obtained, if it was not for fashion and pride. The average life of a needle-woman is less than ten years, and two thirds die of consumption; yet because this kind of work is considered more "respectable" than being nurserymaid, chambermaid or cook, thousands of young women choose it, even with the certainty before them of an early grave. We may apostrophize fashion as liberty was once addressed, and exclaim, "Oh! Fashion, in thy name what deeds have been done."

If rum slays its tens of thousands among men, fashion slaughters as many among women. Who will suggest a prohibitory law against the follies of fashion?—*Philadelphia Ledger.*

WONDERFUL FOUNTAINS.

The fountains of the Crystal Palace at Sydenham, England, are among the greatest wonders of the world. Two huge fountains throw vast jets of water to a height of 280 feet. Two towers are erected on the highest part of the grounds, each 270 feet high; powerful engines take water from artesian wells 575 feet deep, and throw it to the top of these towers, whence it descends and feeds the fountains. The total weight of each tower, when the fountains are playing, is over three thousand tons.

Besides the colossal fountains, there are ten lesser ones, that throw jets one hundred feet high, as well as almost countless smaller fountains, in addition to water-temples, cascades, &c., and several thousand small jets, requiring 120,000 gallons of water per minute to supply them. Ten miles of iron pipes are required to conduct the water that feeds these works. The sight, when they are in full play, is said to be magnificent. The spectator sees before him a group of basins, arranged on terraces that rise above each other, the Crystal Palace building crowning the summit; and each of these basins seems alive with jets flashing in the sunshine, and crossing and re-crossing each other, while cascades diversify the scene, and the two colossal fountains shoot to a dizzy height.—*Scientific American.*

ASTONISHING EFFECTS OF GUANO.

Although some people may be inclined to doubt the truth of the following yarn, we can bring forward any quantity of vouchers. An old Salt, of our acquaintance, says that when he was in the guano trade he sailed as mate of an old brig which might have been a tender to Noah's ark. On a return trip with a load of guano, the hatches were left open and a tremendous shower wet the guano in the hold, and produced the most surprising effect. The timbers of the vessel sprouted and grew in all directions. Between decks was a complete bowery. The forecastle became an almost impenetrable thicket, and the cabin a beautiful arbor. The rudder post being made of white oak, grew up into a "live oak" tree, which afforded a grateful shade to the man at the helm, though he was sometimes annoyed by the acorns rattling upon his tarpaulin hat. The masts became very imposing with their evergreen foliage, and strange to relate, the foretopmast, which had been carried away in a gale grew out again, and the altitude of all the masts was so much increased as to render the vessel exceedingly crank. The vessel had boughs on her stern, and the figure head (speaking figuratively) was as full of boughs as a dancing master. They were obliged to prune the bowsprit and some of the spars twice a week. The quarter deck was covered with shrubbery, and the cook's caboose resembled a rustic summer house. Crab apples grew on the pump handle, and a cherry table in the cabin bore fruit. Perhaps the most remarkable circumstance occasioned by the stimulating and fertilizing influences of the guano was, that the cockroaches on board became so large that they could get up the anchors and make sail on the brig. One of the owners of the craft facetiously remarked, that she went out in a full rigged brig and came home half bark. There is nothing like guano to make things grow, and for strict truth and veracity give us an old sailor when he lays himself out for a big yarn.—*Boston Herald.*

RELATIVE PROFITS OF MILK AND BUTTER.—Warren S. Judd, of South Hadley Falls, Mass., informs the Boston Cultivator, that during the past winter he sold milk, at his door, for four cents per quart, at which rate his cows averaged 23 1-2 cents a day each. He tried making butter, and found that the same quantity of milk produced a pound of butter a day, which sold at 28 cents, making a gain of four and a half cents a day in favor of butter-making, at the prices named. On a trial of three days, six quarts of milk, beer measure, produced a pound of butter.

ESTIMATED VALUE OF SHEEP AND WOOL.

The sheep of the British Isles are believed to number about 35,000,000; England alone possesses about 27,000,000; Scotland, according to the agricultural statistics of 1854, has 4,787,235, and Ireland, in 1853, had 3,142,656. Calculating the 35,000,000 as worth 30*s.* a head, the sheep stock of Britain is worth 52,500,000*l* sterling. The well-being of these flocks is a point of national as well as of agricultural importance, for they not only materially enhance the fertility of the soil and afford a good return to the farmer, but also largely contribute to the feeding and clothing of our population. About 10,000,000 of sheep, weighing on an average 80 lbs. each, are annually slaughtered for food. This furnishes 800,000,000 lbs. of mutton, or on an average rather more than half a pound per day for each individual in the three kingdoms. The mutton at 6*d.* per pound is worth 20,000,000*l.* sterling. Professor Low estimates, that, allowing for the deficient weight of the wool of slaughtered sheep and lambs, each fleece averages 4 1-2 lbs., and the total annual produce of wool will therefore be 157,500,000 lbs. Fixing the value at 1*s.* 3*d.* per lb., the total yearly value of the wool of Great Britain is nearly 10,000,000*l.* sterling. A hundred years ago the flocks of Great Britain were about half as numerous as they are now.—*Essay by Finley Dun.*

SUCCESS IN LIFE.

We are all inclined to pursue too keenly, and to value too highly, what is called success in life, which means a good estate, a distinguished social position, power, influence, and consideration. All the elements that mould the growing mind tend to strengthen this passion. Open the common biographies which are written for our children, and what do you find set down in them? This man, when he was a boy, was docile, diligent, and frugal, he studied hard, he was never idle, and never naughty, he made friends, he acquired knowledge, he laid up all the money that he earned. And what was the result? He became prosperous and powerful and rich; he held high offices and enjoyed great honors, and was esteemed and exalted. If you do likewise, you will be what he was, and gain what he gained. This is but another form of appealing to the love of excelling, rather than the love of excellence,—that inferior motive which, though it may quicken the faculties, dims the beauty of the soul.—*Geo. S. Hillard.*

MEDICAL ASSOCIATIONS.

WRITTEN FOR THIS JOURNAL, BY CHAS. M. WOOD, V. S.

Mr. Editor: — In a late article communicated by me to your Journal, I alluded to "Veterinary Associations." One of the most useful and salutary effects of these Associations is, that men who think too much of themselves, and would continue so to think, during their lives; when they came into an association of fellow laborers in the same profession, they soon learn to put a more just estimate on themselves. They find many who are their superiors; and they are forced to concede this superiority. Thus they learn modesty and humility. And, on the other hand, many practitioners who undervalue their own acquirements, and their own powers of intellect; by comparing themselves with other brethren, who have won some celebrity, are encouraged and cheered in their professional career. They require confidence in themselves, without which a medical practitioner, of all other men, is doomed to a life of humility and poverty. For, if a practitioner seems to have no confidence in himself, he may be sure that his employers will have none, and will soon abandon him altogether.

Now, these Associations are calculated not only to give a man a just estimate of himself, but they also tend to cure him of that diffidence which so obstructs his advancement. And his professional brethren discovering his merit, will aid in his further advancement by citing his opinions among their employers. In this way his fame is created, gets abroad, and he becomes a distinguished and prosperous man; when, had he plodded along a solitary road, his life would have been a life of poverty, melancholy and seclusion.

Another effect of these associations is, to call forth the talents of its members. As "iron sharpeneth iron," so does a conflict of mind with mind sharpen the intellectual powers. Discussions cannot fail to elicit the truth where they are properly conducted; and they purge the mind of many mistaken notions, which have been received as truths, and would have been acted upon as truths, but which discussion and examination show to be errors. A man may become very learned in books by shutting himself up in his study and pouring over volumes in solitude; but all his knowledge will be of little use, either to himself or others, if it is not carried into effect — is not practiced upon, and its soundness proved by actual experiment. The intercourse of society not only polishes the manners, but it polishes the intellect, and makes the stores of knowledge available. A hermit may be a very pious Christian in his cell, but he must expose himself to the temptations of the world,

and resist them successfully, before he can know or make others believe that his virtues and piety are proof. Besides, medical knowledge is not stationary; it is gaining something every day. The results of new treatment in desperate cases can best be learned by medical associations, and soonest learned, long before it is communicated to the world by scientific publication. And as new diseases and new forms of old diseases are continually appearing, and defy the treatment which they formerly received, and the treatment which many practitioners adopt; it is most important that the results of all the different modes of treatment should be accurately ascertained, and the most successful be early communicated to practitioners. And this is best and most surely done by medical associations. And, further, as harmony among scientific practitioners is of great importance in giving confidence in their treatment of diseases to the public; this harmony can only be attained by intercourse with each other, in associations for mutual improvement in knowledge; where, in the collision of intercourse, the rough points of character and manners are rubbed off; and a man acquires amenity and politeness and an acceptable address by the polishing effects of society.

Now there are, in this country, many medical practitioners on the horse. Some of these claim to be certified from the Royal Veterinary College, in London. Some others are not certified and do not pretend to be. As we may suppose, in such a state of things, a few of the "certified" practitioners look down with lofty scorn on their "uncertified" brethren. They seem to act as if *they* possessed *all* the knowledge and were the great lights of their profession, while their "uncertified" brethren were only farthing candles, or "lightning bugs," shining in dark places and at night, in obscurity! But, it happens that the balance of talent and serviceable knowledge is with the uncertified portion, while their haughty certified brethren have little besides their certificates to show. It is too often the case, that many young men who leave college think they have "learned out;" that any further investigation and requirements are unnecessary. But they soon find that their profession is an advancing profession, and that if they do not keep up with its progress they will soon be left far in the rear. The professional man in any profession must be a student. Knowledge will not stand still; one discovery only opens a path to more discoveries; and the practitioner of medicine must be an investigating and "go ahead" man, or, like the crab, he will either go sideways or stop on the way.

Many dunces come out of college, some from neglect of instruction, and some from want of natural ability to be instructed. And so it is in all kinds of business; some will take to a business with

zeal, learn all they can in reference to it and pursue it with ardor, and most succesfully; while others enter upon the same business with indifference, care nothing about acquiring the necessary knowledge to pursue it, commence and carry it on as if it was a burthen to them; never improve or acquire any further knowledge; and, finally, are neglected and despised, when their ignorance and incompetence are ascertained. It is well known that there are a few men of talent among these practitioners who are not certified. Such men always and everywhere make their way by force of their ability, and acquire and lay up knowledge as they proceed, and, in time, become, as they ought to be, distinguished.

Genius is like the magician who came out of a filbert, and grew to be a giant. And no matter to what object it may be directed, it is sure to win its way and to become noted.

After all it is the zeal and attachment a man has for his profession which wins for him distinction. It is hardly possible for any man of good ability to pursue a profession with ardor, and with real fondness for it, without, in the end, winning fame, if not wealth. People will mark his assiduity and industry and good judgment, and in time he is sure of meeting his just reward. I truly respect the certified and really qualified practitioner; but I hold in contempt the certified *egotist*, who thinks himself the chief of his profession, while all the rest are merely *satelites* revolving around his superior light. We are, perhaps, continuing this subject too far. But we cannot conclude without pointing out another class. It is composed of that miserable crew of lazy "*ne'er-do-wells*," mere hangers on to the skirts of society, who despising labor, attempt to procure a support by pretending to that, of which they are entirely ignorant and incapable of learning. These are the creatures who have brought the Veterinary Science into disrepute, and whose course has been *marked* with the carcasses of dead horses and cattle. These are the men who wander about, torturing the unfortunate animals which a mean economy submits to their treatment, and which is found to be no economy at all when the animals can only repay their care with their skins. The sooner these fellows are hunted out of the community the better for the people. They have imposed npon their credulity too long, have cost them too much, and are fit for less usefulness than any one of the animals whom they hurry to an untimely grave. The country is full of them; and even the cities, which boast of such superior civilization. We ought not, perhaps, to be surprised at this, when we see the owners of valuable horses submitting, to the like quackery, their own bodies. It is most singular and remarkable, that when a man is about investing his money, or laying his plans of acquisition, or gets involved in controversy, he seeks the best and

safest counsel for advice. But, when his own health fails, and his life is endangered, or the health and life of his domestic animals, his shrewdness seems to desert him, and he entrusts the safety of both to men who are wholly incompetent to manage either of them with success.

In closing this article, recommendatory of medical associations we cannot do better than by introducing a quotation from the writings of Sir Benjamin Brodie, a most celebrated medical professor of England. He says: "If any one were to ask me what were the advantages of medical societies, I should say: first, its library; secondly, whatever brought a number of men of one profession into friendly intercourse and scientific conversation, exercising the intellect, and giving additions to their knowledge; it maintained the zeal of the zealous, while it imparted a spirit of emultation to those previously without it; thirdly, it removed that distrustful feeling so liable to be engendered in professional men not personally acquainted. It gave us a better knowledge of ourselves, taught us humility in respect to our own attainments, and a respect for the opinions of others."

We publish in our present number an illustration of the celebrated high-blood stallion, Gifford Morgan, Jr., sired by old Gifford Morgan. Although but six years old, he has already acquired great celebrity as a stock horse. He stands fifteen hands high, and weighs over eleven hundred pounds. His color is jet black. He possesses a perfect combination of symmetry of frame and grace of action. He has a quiet and docile disposition. When roused to action, he exhibits a fire and energy in an equal degree to the celebrated Green Mountain Morgan, his half brother, and has given promise of attaining to the first rank among trotting horses. He now stands at Mont Rose, Iowa. The cut which appeared last month as Gifford Morgan, was a representation of "Justin Morgan," and occurred through a mistake. The cut of Justin Morgan was furnished to us by C. M. Saxton & Co., 140 Fulton Street, New York, publishers of Linsley's work on Morgan Horses, to which valuable work credit should have been given for the same.

A CHAP who was caught in the water wheel of a grist mill, with no other damage than a slight ducking, says he means to apply for a pension on the ground that he is a *survivor of the revolution.*

FAST HORSES AGRICULTURALLY CONSIDERED.

In all our horse talk and writing, we have spoken disparagingly of that class of horses the only merit of which is, that they are merely fast. These gaunt, leggy spiders that can do nothing but run, are about as useless in this world as those fancy gentlemen in flashy vests, who generally attend them in their airings. And we have still less sympathy with the gamblings attendant upon the meetings of this class of men and horses upon the turf. We have never attended such a meeting, and have no desire to. Thus much for our disclaimer.

Of late, quite a respectable portion of the agricultural press, and many of the news and literary papers, have come down upon the "trials of speed" at agricultural fairs, which they say is only horse racing, under another name. Well, it is hard to say just where we pass the line of healthful rivalry, when once we enter the path of competition. Mrs. Smith and Mrs. Jones both compete for the prize for the best ten lbs. of butter. Mrs. Jones does her best, but Mrs. Smith does a little better, by her superior dexterity with the skimmer or the ladle, and she wins. Here is a woman race, with all of its rivalries and expectations and disappointments, on a small scale. Almost everybody says it is right; we shall not dispute with them. Clark has a Suffolk pig,—he believes in Suffolks. White has a Byfield,—he believes in Byfields. Clark and White set out to see which will make the best porker in a given time. One tries the jugglery of ground and cooked feed, the other the mystery of steamed potatoes and corn in the ear. One beats, of course, and the other thinks he cheated. Here is a hog race. Judge B. and Gen. C. being troubled with plethoric purses and ambitious brains, go to England or Timbuctoo, and each buys another calf, which is educated and brought up far more carefully than those who call them father, and at a proper time exhibited for the big prize. Here is a bull race, a step or two in advance of the others.

Charley has a nice filley, with thin, sloping shoulder, long hip, and such a good walker; he would like to see the nag that could out-walk his filly. Charley is riding in town, and Jim comes up on the same errand, and having learned the state of Charley's mind, accommodates him to a walk with his sorrel for a quarter of a mile; the stakes are the good opinion of each boy for his nag. Charley loses. Nobody ever thought that was a horse race; well, may be it wasn't. At the county fair, John had a Morgan and Will had a Bellfounder; standing still, the judges could not tell which was best, and as one or the other had to be best, the judges said, "Let's see them move." John trotted, and Will trotted, John trotted faster, and Will trotted

faster, John trotted as fast as he could, and Will trotted as fast as he could, and they both trotted as fast as they could and kept on trotting; and the people gathered about, and each one of the five thousand made up his or her mind which horse they would rather have, and so did the judges, and the trotting was over. And then some folks thought they began to smell a horse race! and some folks have a nice and discriminating sense of smell. Our olfactories are not that sharp.

But enough of this pleasantry. We are willing to take a more serious view of the subject. One objector says, "Fast horses are *not* an agricultural necessity, nor even an agricultural product. No practical farmer need be told that the rearing and training of such horses is at utter variance with agricultural success. Fast horse flesh has no practical value since the introduction of railroads and telegraphs." That is what a young gentleman wrote of the late exhibition of the United States Agricultural Society at Philadelphia.

Is it an "agricultural necessity" to raise fifty bushels of wheat to the acre, and so get fifty dollars instead of fifteen dollars for your crop! Is a two thousand pound bullock an "agricultural product?" Let us abolish these railroads, so that the beeves we send to Gotham will get nice and tough as in former years, by a four weeks' travel on foot, because these New Yorkers are getting better steaks than they deserve, and our cattle feeders are getting too much money. Let us have a moral reform society, and petition the Legislature to pass an Act, forbidding any farmer to raise a colt that can trot faster than a mile in fifteen minutes, or that shall be worth over fifty dollars at four years old, because "fast horse flesh has no practical value" now, and a five hundred dollar colt is "not an agricultral product."

Oh George! It may do to talk that way in Sleepy Hollow, but the very Quakers of Ohio would laugh at you for telling such stuff out here. You should have seen Friend Joseph put his Black Hawk around the ring at Cleveland, and Friends William, and James, and Thomas, and John, and lots of others, among the fastest and most successful competitors. Do you say Ethan Allen is not an agricultural product? and our Champion Black Hawk? Flying Cloud? Highlander? Monarch? Hassan! Kennebec? You never sat in the buggy with Reber of Lancaster, after his black mare or with Brown of Trumbull after his gray, or rode through the oak openings of the Darby with Fullington beside his Morgan stallion, chasing cattle. Take a seat with our farmer friend Mordecai Lee, of Stark, after his Fly, and when the wind begins to whistle in your ears, ask Mordecai what he will take for the mare, and see how quietly he will tell you, she is not for sale; and after a

little more such experience, learn some good hard horse sense, and confess that the raising of such stock is *not* " at utter variance with agricultural success."

We can hardly bring our pen to write seriously on this subject, after all. Life is but a race of one kind or another, and the best advice we have to give, is, not to run against each other's sulkeys, or leap ditches so wide that you will stick in the middle. Dont get out of breath, and don't fret. So we will all come to the end of the race in good order.—*Ohio Cultivator.*

MONGOLIAN CUSTOM.

When the Mongolian army proceeds on service, a body of men is sent two days' march in advance, and parties are stationed upon each flank in the rear, in order to prevent its being attacked by surprise. When the service is distant, they carry but little with them, and that chiefly which is requisite for their encampment, and vessels for cooking. They subsist, for the most part, on milk. Each man has, on an average, eighteen horses and mares, and when that on which they ride is fatigued, they change it for another. Should circumstances render it necessary, in the execution of a duty that requires dispatch, they can ride for ten days together without dressing victuals; during which time they subsist on the blood drawn from their horses, each man opening a vein and drinking from his own animal. They make provision also of milk, thickened and dried to the state of a hard paste or curd.—*Marco Polo's Narrative.*

SUCCESS.

Success prompts to exertion, and habit facilitates success. Habit also gives promptness, and the soul of dispatch is decision. One may write a book or paint a picture, while another is deliberating about a plant or a title-page. The more we do, the more we can do. If we go forward with spirit and confidence, we shall succeed. The best are idle half the time, and he who does nothing renders himself incapable of doing anything while capacity is invigorated by occasions of necessity. Our expenditure of intellectual wealth makes us rich, and we acquire ideas by imparting them.—*Tennessee Farmer.*

RUPTURED BLADDER IN THE HORSE.

REPORTED FOR THIS JOURNAL, BY C. M. WOOD, V.'S.

MR. EDITOR: — On Monday, Sept. 1st, 7 A. M., I was requested to visit a horse, in the livery stable of N. E. Nims, in Chardon street, in this city. My subject, a bay horse seven years old, in high condition, *i. e.* fat. Upon enquiry, I was informed, by the man who had the care of him, that, when he entered the stable, at four o'clock, A. M., he found the horse rolling and tumbling, and in great pain. I asked what the horse had been doing? And was answered that, having fallen into other hands, he had done little more than merely exercise for the past four months. On examination the following symptoms were presented: The animal was standing, with the near fore extremity raised and extended, and in the act of pawing; but he did not disturb his bedding. He would, suddenly, place one foot down, and raise the opposite one; when he would continue to paw, in like manner, for two or three minutes. He would then cease pawing, and extend himself, in his stall, with his head elevated; with a fixed stare, as if in the act of urinating. He would then, perhaps, lie down at full length in his stall, or throw his head back upon his side, and remain in this position a few minutes, would again rise and commence pawing as before. When standing his hind extremities were wide apart. I proceeded to examine him further. His pulse was 42; mouth hot, but moist; the visible mucuos surfaces slightly injected; his respiration little disturbed, in fact, his symptoms were not violent. I gave an antispasmodic drench, and left him.

At 8 1–2 A. M., visited my patient. Found him standing apparently relieved, yet he occasionally manifested slight symptoms of a kind of dull abdominal pain. His bowels being costive, I gave him mass cathartic ℥j., hyd. chlorid, ℥j., pulv. opii. ℥ss., — in a *ball.* Noon, still the same. Ordered him a bran mash, which he did not eat; nor did he drink. Gave an enema. Stimulated the abdomen, and left him. Six P. M, He has lain down quietly two hours. Is now standing, easy, but neither eats nor drinks. Nine P. M. Still the same. Lies down occasionally. When standing paws considerably. Has had no evacuation of the bowels, or of the urinary passages since the man discovered him to be sick. Examined rectum; no fœces. Gave tereb venet, et balsam copiva, each ℥ss. in an infusion of linseed; gave enema per rectum, and left him for the night, leaving a pail of water in his manger before him. Sept 2d, 6 o'clock, A. M. On entering the stable my patient appeared much the same as when I left him the previous evening. I enquired how he had been during the night? when the groom in-

formed me that he had remained easy till about 1 o'clock, when he commenced pawing as yesterday, (but without disturbing his bedding.) That he would lie down for a few minutes quite easy, when he would throw himself at full length in his stall, and remain in that position a short time; then rise up and extend himself, as if to relieve the urinary passages. But he observed a dribbling of a few drops only, as usual. "As usual?" I said, "Have you never observed any difficulty in his making water before?" He said, "I have taken care of this horse, now, over two years, and never saw him make more than a wine glass full of water at any one time, that he was staling a little every ten or fifteen minutes; and his stall was constantly wet; but he had never seen any trouble with him on account of it. This statement was fully corroborated by Mr. Nims and several other persons. I now examined my patient per rectum, and found his bladder empty. Upon introducing the catheter not a drop of urine was obtained nor even the odor of urine upon the catheter. I now concluded that he had a ruptured bladder, and gave up all hopes of his recovery. However, from the pain at intervals, and apparent relief of the animal occasionally, I directed my treatment to the kidneys and bladder. By giving oily laxations, emollient enemas, and counter irritation; in the hope, not of cure, but of palliation; and each, in turn, gave relief for a short time.

Nine P. M. Have seen my patient several times during the day. His symptoms increasing in frequency and violence. Pulse 66, respiration hurried: body and extremities still warm. He paws, rolls, and trembles frequently. Gave an enema, which had the effect to remove the contents of the rectum; about four or five small pellets, which were clothed in mucous. He, now, for the first time, drank six or seven swallows of water, but had no desire for food. I ordered a pail of water placed before him, and a man to watch him for the night.

Sept. 3d, 6 A. M. Has drank up his water. Still paws; lies down; suddenly rises; paws again; and thus continues. Drinks freely four or five pails of water during the day. Body still warm. He is not at all violent, his pain being, as it were, dull, his abdomen rapidly increasing in size. Nine P. M. Have seen my patient several times since morning. See no possible chance for his recovery. His respiration is quick and laborious; pulse 74: visible mucous surfaces highly injected; head and neck bedewed with cold perspiration: tremor of the fore extremities; still paws, but does not lie down. He puts his nose in the bucket, and plays with the water in it, but does not drink. Abdomen appears to increase in size. Notwithstanding every means was used for his relief the symptoms continued to increase in severity, and he died at 1 o'clock A. M. on the fourth.

P. M., examination 36 hours after death, the knacker neglecting to remove the horse before.

On opening the abdomen the following appearances were visible. A slight blush of inflammation pervaded the whole of the intestinal canal. Extreme distention of the caecum and colon; but their contents were pultacious. The bladder quite empty and contracted at its cervix into firm rugœ; in substance its walls thickened to half an inch: its apex bore marks of ulceration, with a rupture of one and a half inches through its parieties. Had it not been ruptured I think the bladder could not have been made to contain more than a quart. And we think this condition of the organ is sufficient to account for the constant dribbling spoken of by the groom. There was an accumulation of several gallons of fluid in the abdominal cavity, and the peritoneum bore evident marks of inflammation; which, doubtless, had been rendered less solvent by the medicines administered. The lining membrane of the bladder was clothed with a kind of mucous, thick, muddy, and of a dark color. The kidneys were almost destitute of the investing membrane; what remained rubbed off with the slightest touch; in attempting to remove them from their connections, they were torn with very little force. They were of a brick red color, extremely soft, so that they could be squeezed between the fingers like a paste; or, when laid upon a board, they flattened like soft dough. The liver was softened, or, as it is generally called, rotten; it appeared pale, was of a clay color externally, and could be broken down with the slightest pressure. The stomach was healthy, and contained about four quarts of fluid. The thoracic viscera healthy; heart large and firm; lungs sound, but discolored, doubtless from laying so long after death.

Remarks. An idea suggests itself in regard to the case now under consideration: that the liver did not properly prepare the blood for the secretion of the urine — hence the morbid condition of the kidneys and bladder. But, although these organs are shown to have been exercising a diseased secretory action, yet, doubtless, the primary seat of the affection was in the digestive apparatus, the stomach, and, more particularly the liver. This question is not only a very important one in a pathological point of view, but it is also one of peculiar interest to the practitioner in his treatment of disease. It directs him to the proper remedies to employ, and the action of these remedies on the organs affected. In the treatment of all diseases it is not only necessary to understand the cause, but to know the organ or viscus affected.

DEATH OF A CELEBRATED HORSE.

"Black Hawk," the famous stallion, owned by David Hill, of Bridgeport, Vt., died last week, 23 years old.

Black Hawk was foaled in 1833, and was then the property of Wingate Twombly, of Greenland, (formerly of Durham, N. H.) His sire was the "Sherman Morgan" horse, his grandsire the Justin Morgan, famed as the progenitor of the Morgan horses. His dam was a half-blood English mare. When four years old he was purchased by Benjamin Thurston, of Lowell, and used as a family horse until 1844, when Mr. Hill purchased him, and in the hands of this gentleman he soon became famous. Black Hawk was little less than fifteen hands high, and weighed about 1,000 pounds. His color was black like that of his dam, and his colts have been black, bay, or chestnut, with hardly an exception. He possessed the character of the Morgan family of horses, in an eminent degree. He was symmetrical, muscular, and compact in his form, and his elastic style of action, speed, and endurance, which qualities he imparted in a remarkable degree to his progeny, rendered him one of the most valuable stock horses ever owned in this country. Black Hawk could trot his single mile in 2.40, and exhibited considerable bottom in longer races. In 1842, he won a match for $1000, by trotting on the Cambridge Track five miles inside of sixteen minutes. October 3d, 1843, he won a race of two mile heats, beating two competitors easily in 5.43 — 5.48 — 5.47. Black Hawk was the sire of several of the fastest trotting horses on the turf, among which are "Ethan Allen," the fastest trotting stallion in the world; of "Lancet," who has beaten the best time of Lady Suffolk; of "Black Ralph," "Belle of Saratoga," Black Hawk Maid," &c. He was not only a fortune for his owner, but the value of his stock has added much to the wealth of the State where he was kept. Mr. Hill has received for his services forty thousand dollars; his last season netted seven thousand dollars, and he was already booked in advance for five thousand dollars. His owner obtained insurance on his life until he arrived at an age when the premium charged was necessarily very high, and he died uninsured.—*Porter's Spirit of the Times.*

ANSWER TO CORRESPONDENT. Mr. Munroe,—Your horse probably died from internal hemorrhage. There is no preventive for the same.

CASES OF RUPTURED LIVER.

BY ROBERT WOOD, V. S., LOWELL, MASS.

CASE No. 2.—When my attention was called to this case I was informed it was a case of staggers, and certainly when I saw the horse, his first appearance strongly indicated such to be the case. He was tied in an open shed; perfectly comatose, his head resting heavily upon his halter; pulse 34, respiration 12; legs and ears, and also the surface generally warm. The owner informed me, the horse was as well, for aught he knew, the night previous as usual, ate his supper, &c. This morning he was taken from the stable and tied to a tree for the purpose of being cleaned, when he was observed to be unwell, and, within a few minutes, fell headlong in a sort of fit." I was immediately sent for, and found the symptoms as above. Diagnosis; apoplexy, gave aloes barb. ʒvi—verat alb. ʒss; ordered injections frequently, the legs to be well rubbed, and allowed all the water he would take, promising to call again at night, which I did, and found my patient dead; he had fallen and died almost without a struggle.

On the following morning I called and made an autopsy, when I found the liver to be of an enormous size, but upon cutting into it, discovered its peritoneal covering filled with coagulated blood to its utmost capacity, and the liver softened and ruptured in several places; every other internal organ in an ordinary healthy state.

CASE No. 3.—The subject, an aged grey mare, had worked in a livery stable for the past twelve years. During the last three months previous to her death, she had (as the owner thought) become extremely lazy, yet continued to eat and drink heartily. My attention was called to her on the morning of August 12th, 1855. The owner informed me she had been driven about twenty miles the day previous, arriving home late, and appeared very tired, and had neither eaten nor drank since she came home. Symptoms: great depression of spirits; refuses to move; ears and legs cold; pulse not perceptible at the jaw, but upon applying my ear to the chest I could distinguish the action of the heart to pulsate about twenty-five times per minute; respiration twenty; inspirations long and full; expiration short and quick; membranes blanched. Occasionally putting her muzzle to her off side, wisking her tail, and in other respects mainifesting slight pain; excretions nearly natural. Diagnosis; internal hemorrhage, from ruptured liver. Prognosis unfavorable. I was so fully convinced the mare would not live but a short time that I did not give her anything. She died at 6 P. M.

Autopsy revealed a ruptured liver, the abdomen filled with blood, and almost every blood vessel in her body empty. The liver of an enormous size, of a pale ash color, and softened, and between it and the stomach I found a large fibrous tumor, firmly and extensively attached to the liver, stomach and diaphraghm, in the very centre of which was about a pound of matter, quite firm, of variegated colors. This tumor must have been of long existence, as its external coat was nearly half an inch thick, and quite vascular. The tumor I have preserved. I also found melanotic tumors in various parts of the body, and one, the size of a large hazel nut, in the septum of the heart near its apex. This mare had always been a great worker and a large feeder.

CASE No. 4.—Subject, a beautiful blood-bay horse, seven years old, in high condition; worked daily in a provision wagon. He had been driven to our Poor Farm, about two miles out of the city, and, when he was turned to come away, he started suddenly in a playful manner. He had not gone far, however, ere he fell, and died almost without a struggle. The owner requested me to make a *post mortem* examination that he might learn, if possible, what could so suddenly cause the death of an animal in such apparent good health.

Autopsy, six hours after death, proved this noble fellow to have died from rupture of the liver, its longest lobe being ruptured nearly its whole length, and the whole liver very much softened.

(*To be Continued.*)

HAY FOR COWS IN SUMMER.—An observing, intelligent and successful farmer informs us that he is in the practice of feeding his cows in summer, particularly if the season is such as to afford flush pastures. His reason is, that a full, rapid, and vigorous growth of grass gives to cattle, that feed upon it, a desire for something to absorb the excess of the juice of their food. Dry hay they devour greedily; and, though in ever so small quantities, evidently with the most beneficial effects. Every farmer must have observed that in dry seasons, horses, cattle and sheep keep in good condition upon herbage parched and apparently scant, while in wet seasons, in all pastures, though always full, the process of fattening with them was slow. Dry fodder in such cases is required to give substance and tenacity to the green, and can be profitably used by feeding it to cattle.—*Newburg Telegraph.*

PROSPECTUS FOR 1857.

THE AMERICAN VETERINARY JOURNAL.

THE Publisher of this truly valuable periodical respectfully calls the attention of husbandmen, and others whom may feel an interest in the promulgation of the principles of Veterinary Science, to the following programme for the year 1857 :—

This Journal furnishes original and reliable articles on the science of Veterinary Medicine and Surgery. Selections will also be made from Foreign Journals, calculated to inform the reader of what is known, or believed to be so, of the above Science in the Old World.

We shall also furnish reports of *cases* occurring in the daily practice of qualified practitioners; detail the mode of treatment; nature of the disease, its cause, and the best means of prevention.

We shall endeavor to enrich our pages with practical information on *breeding*, *rearing*, feeding, and the general management of live stock, and at the same time, keep the reader *posted* on all that is new and useful in this department of Agricultural Husbandry.

The reader will also be entertained with original and selected matter of a miscellaneous character, calculated to amuse and instruct all classes of persons.

CONDITIONS.

The Journal will be published monthly, in octavo form, containing thirty-two pages; making at the end of the year, a handsome volume of three hundred and eighty-four pages, furnished with a copious index.

The price per annum is one dollar, *invariably in advance*. Any person, however, forwarding five dollars shall receive six copies to his, or the address of others.

All communications containing matter for publication in the Journal, or seeking for professional advice, should be addressed to the Editor, George H. Dadd, Boston, Mass.

Advertisements, letters containing subscriptions, and all business letters, should be addressed to the Publisher, S. N. Thompson, No. 97 Union street, Boston, Mass.

As an advertising medium for agriculturists and horse-owners, the Journal possesses superior advantages over the ordinary publications, inasmuch as it circulates extensively among the *right kind of men*, and every effort will be made to extend its circulation.

As an inducement for persons to interest themselves in the circulation of this Journal, the Publisher offers the following additional terms:

1st. Any person sending five dollars shall receive *five* copies of this Journal for one year, and a volume of "The Modern Horse Doctor."

2d. On the receipt of ten dollars, the sender is entitled to *ten* copies, for the year, and one volume of "The Anatomy and Physiology of the Horse," uncolored plates.

3d. For the sum of twenty dollars we shall furnish twenty copies of the Journal and one volume of "The Anatomy and Physiology of the Horse," colored plates.

NOW IS THE TIME TO SUBSCRIBE.

S. N. THOMPSON, Publisher,
No. 97 Union street, Boston.

EDITORIAL CURRYCOMBS.

ONE of our *Southern* exchanges occasionally comes along looking like a sick kitten; we believe, however, it contains the usual quantum of matter, yet under a microscope of twenty horse power, there appears but faint traces of printer's ink. Do, Mr. Pressman, be a little more liberal with your *ink*, or else send us a pair of all-seeing specks.

A DREADFUL COUGH.—A writer, as will be seen in this No., tells of a horse "that caught a bad cold, and coughed so severely that he could be heard half a mile." This put us in mind of "Jack's" telescope, which was so powerful that when brought to bear on a man a hundred miles distant it brought him so near, that his *voice* could be distinctly heard!

LOST HIS APPETITE.—Dr. Grunter complains, "that his horse has lost his appetite." Poor creature! We pity the poor "nag" that was unfortunate enough to find it.

WOOL STATISTICS.—Ever since the commencement of the American Confederacy, even up to the present period, the *barn-yard vets* have been engaged in pulling *wool* over the eyes of their employers. This indicates that, in the Veterinary Denmark of sheep and horse husbandry, &c., there is something very rotten—very rotten, indeed.

WE notice in the advertising columns of "Porter's Spirit of the Times," "Saturday night" occurring about twenty-four times in the space of a page and a quarter. What the plague is the matter, Colonel? Are you jubilant over the good time expected next *Saturday night*, or are you rejoicing over the past. Do pray enlighten us, and if there is either "*fur, fun* or *feather*" to be discussed we shall drop in some Saturday night, provided you will initiate us.

SHOCKING DEPRAVITY.—An apparently rather genteel biped, who has hitherto been dead set against progression in the science of Veterinary medicine, and who has been actively engaged in slandering his betters, simply because they would not uphold the follies of the past, nor be governed by his *ipsi dixit*, has just committed Allopathic suicide, and commenced a new professional existence under the questionable guise of homœopathy. It is said that "there is but one step between the sublime and the ridiculous," and the course which the subject of these remarks has thought proper to pursue is a practical illustration of the above aphorism. The prayers of the Faculty of the London Veterinary College are requested for the re-conversion of their depraved beneficiary.

Ashes to ashes, dust to dust,
If allopathy don't feed him homœopathy must.

Amen.

EDITOR'S DRAWER.

ON rumaging over our drawer, the first thing we grasp is a pamphlet, entitled "Illustrated Catalogue of Ruling Machines, Ruling Pens, Sawing Machines, Press Boards, Table Shears, Standing Presses, &c., manafactured by W. O. Hicok, at the Eagle Works, Harrisburg, Penn."

This trick of sending illustrated catalogues to editors for the purpose of giving notoriety to goods for sale, is a sort of underhand business, diplomacy, peculiar to some men who belong to the society of "save at the bung and let it run from the tap." However, the sendor has accomplished his object, in securing a notice of his catalogue, which is so superbly illustrated that we could not resist the temptation to

give it passing notice. In the language of Barnum, "no business man can afford to dispense with *liberal* advertising." Therefore we advise friend Hicok to act accordingly.

The Illustrated Annual Register of Rural Affairs and Cultivator Almanac, for the year 1857, containing Practical Suggestions for the Farmer and Horticulturist; embellished with One Hundred and Fifty Engravings, including Houses, Farm Buildings, Implements, Domestic Animals, Fruit, Flowers, &c. By J. J. Thomas, author of the "American Fruit Culturist" and "Farm Implements," associate editor of "The Country Gentleman" and "Cultivator." For sale by Luther Tucker & Son, Albany, N. Y., and by Saxton & Co., 140 Fulton street, N. Y. Price twenty-five cents.

One important feature of this excellent Almanac, and one which renders it more valuable than any of the kind we have yet seen is, that it is composed of original matter prepared expressly for the purpose. The author has condensed in *small* space and *neat* form, a large amount of readable and highly interesting matter. This is the third volume; the two previous issues have been very favorably received, and the one now before us seems to be more valuable than the former.

The Water-Cure Almanac for 1857. Contents.—*Hygeopathy*—General Rules in Water-Cure; Bathing; Exercise; Diet; Drink; Temperature; Ventilation; Light; Sleeping; Rules for Treating all Fevers; Rules for Treating Bowel Complaints; Moral Influences of Wholesome Food; Abstinence from Flesh. *Synopsis of Bathing Processes*—Wet Sheet Pack; Half-Pack; Half-Bath; Hip or Sitz Bath; Foot-Bath; Rubbing Wet Sheet; Pail Douche; Stream Douche; Towel or Sponge Bath; The Wet Girdle; The Chest Wrapper; The Sweating Pack; The Plunge Bath; The Shower Bath; Fomentations; Injections; Animal Food; Derangement of the Milk of Animals; Vegetarians and Small Pox; The Wrongs of Children; Poor Health of American Women. *Family Gymnastics, etc., etc.* With illustrations.

Price six cents single copy; Twenty-five copies for one dollar. Address

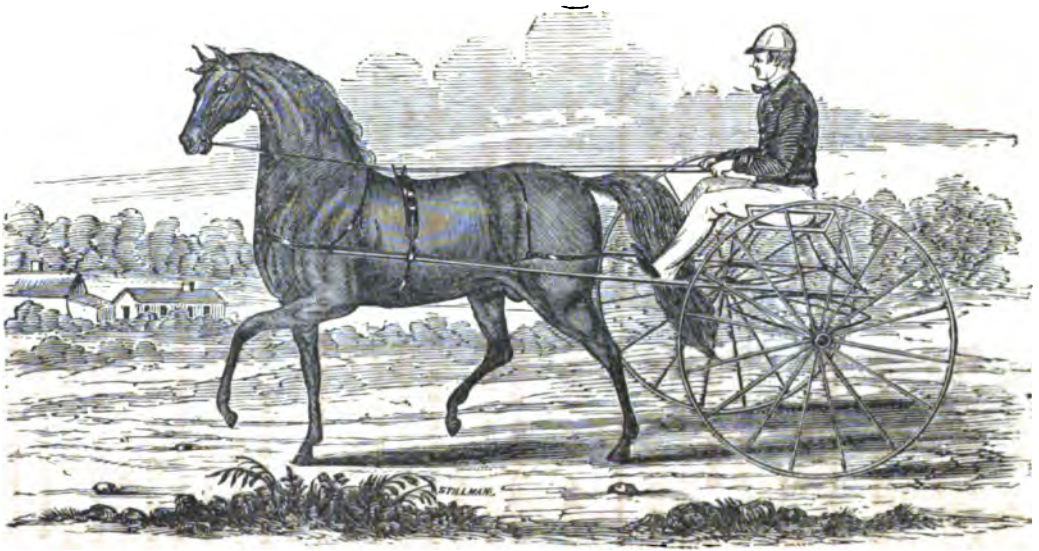
FOWLER & WELLS, 308 Broadway. N. Y.

There are no persons among our literary acquaintances that place so high a value on *brains* as Messrs. Fowler & Wells, and how in the world they can afford, or be persuaded to use their, at so cheap a rate, and furnish the public with such excellent matter for merely the price of the paper is a mystery to us; however, that is none of our business. Should any of our subscribers have a spare fourpence in their pocket, we advise them to invest the same in the "Water-Cure Almanac."

"The Medical World." A Journal of universal medical science; edited by J. V. C. Smith, M. D., and E. S. Smith, M. D., Published weekly by Damrell, Moore & Coolidge, No. 16 Devonshire street, Boston, Mass. Price two dollars per annum.

Dr. Smith announces, "that for more than a quarter of a century" he has been engaged in sustaining the principles of pure allopathy, and thus furnishes evidence of his loyalty to *Alma Mater*. He is "now engaged in a new enterprise, embracing a wider range and more liberal views in regard to the various sentiments now prevailing on the subject of medical science." It is never too late to do good, and if the Doctor has just discovered that his intellect and genius can be turned in a direction having a wider sphere of usefulness, we are glad to find that he has the manliness to shake off the shackles of the past and embark in the ranks of Young America—the progressive. The "Medical World" will most assuredly become "a popular health periodical for the people, and a liberal journal for the medical profession."

"Printer's Register, Devoted Exclusively to the Printer's Interests, including the Latest Discoveries and Inventions." Edited by S. M. Bigelow; published at Philadelphia; price fifty cents per annum. It is got up in splendid style, on fine paper, has a good typifications, and lots of *originals*, but is so cheap that the prorietors must never expect to become millionaries.



CHAMPION BLACK HAWK.

From Linsley's History of the Morgan Horses. Published by C. M. Saxton & Co., 110 Fulton Street, N. Y.

THE AMERICAN

Veterinary Journal.

DEVOTED TO THE DIFFUSION OF VETERINARY KNOWLEDGE.

Edited by GEORGE H. DADD, Veterinary Surgeon.

Published by S. N. THOMPSON, 97 Union Street.

PRICE, ONE DOLLAR PER ANNUM.

VOL. II. BOSTON, MASS., FEBRUARY, 1857. NO. 2.

ROUGH NOTES ON CONTRACTION OF THE HOOF.

A correspondent informs us that he has a valuable mare, the subject of *contracted feet*, and desires to know if faulty shoeing is not the cause of the same.

Altered structure, corns, and various other affections of horse's feet, are often attributed to the above cause, and no doubt a rational, and improved method of preparing the foot, and adjusting a suitable shoe for the same, may lessen the liability to some such diseases; yet we contend there are other causes than the above, over which the blacksmith has little, if any control. We allude to that universal law, termed hereditary predisposition; which provides that "like shall produce like." We know that the "Black Hawk," "Messenger," and many other permanent varieties of breeds, transmit to their offspring a peculiarity of form, temperament, quality and color, by which the lineage of the latter can with certainty be determined. And should the parent labor under any *permanent* disease, defect or vice, the same is very apt to be, directly or indirectly, transmitted. The very color of the hair, accompanied by particular and distinctive markings, often extend and re-appear through several generations. Hence, a colt begotten by a sire defective in so important a part of the animal economy as the feet, ("no foot no horse,") must necessarily, in accordance with *nature's* immutable law, inherit the same *idiosyncrasy*. Therefore, the very

best system of shoeing practised on *nature's* criminals, would fail, when attempting to reverse *her* decrees.

A horse, inheriting the least predisposition to faulty feet, is at all times liable, when used for draught, or speed, on paved thoroughfares, to disease of the same, which may end in *contraction*, it being, in nine cases out of ten, the result of primary disease of the foot.

A defect in the conformation of a horse's foot, may be so slight as to escape *ordinary* observation, yet the defect is there, liable to augmentation, and sooner or later the evil is discovered.

That a tendency to contraction of horses feet does lurk in some breeds, we have abundant authoritative proof to offer, if necessary; consequently, faulty shoeing cannot be classed as the direct cause of contraction.

A point-blank argument in favor of the blacksmith in this view, is founded on the fact that contraction of the hind feet, which undergo the same system of shoeing, seldom, if ever, become the seat of this deformity. Among our truck horses, may be found many of the Pennsylvania, New York and Vermont breeds, that have to endure all the evils of shoeing, as well as of domestication; yet a great proportion of them enjoy immunity from contracted feet. Therefore, the latter are not predisposed; they have good open heels, the foot is well proportioned in all its parts, and bears a symmetrical relationship in size, form and action, to the limb and body, which it aids to support and move.

Hence contraction, as well as many other forms of disease which are observed in the feet of the horse, have their origin in hereditary predisposition; therefore, it is a matter of impossibility for a smith to make a good foot out of one that was originally defective.

To Stop Bleeding from the Cavity of an Extracted Tooth. Noticing the case of Mrs. Locke, who bled to death in consequence of the extraction of a tooth, Dr. Addington, of Richmond, Va., says he never fails to stop the bleeding by packing the alveolus from which the blood continued to trickle, fully and firmly with cotton moistened in a strong solution of alum and water. He cured a brother physician in this way, whose jaw had bled for two weeks.

Recipe for Mending Broken China.—Take a very thick solution of gum arabic in water, and stir into it plaster of Paris until the mixture becomes a viscous paste. Apply it with a brush to the fractured edges, and stick them together. In three days the article cannot again be broken in the same place. The whiteness of the cement renders it doubly valuable.

"BLACK HAWK"—REMARKS ON HIS DEATH.

SUGGESTIONS IN REFERENCE TO HIS SKELETON.

To the Editor of the American Veterinary Journal:

Dear Sir,—I was sorry to see by the last number of the *Albany Country Gentleman*, that has just reached me, the demise of the celebrated horse "Black Hawk." The death of an animal of his stamp, is no mere personal or sectional loss, but is cause of general regret to the whole horse-fancying community through which his fame extends; every year's additional service of him being worth to the country at large, thousands, or perhaps more truly, hundreds of thousands of dollars, of prospective benefit. With me, one chief cause of regret for him is, that I have never had an opportunity of seeing him in life and action, and now never will. I would, therefore, if it could be of any service, strongly support the suggestion of Sandford Howard, Esq., that I see quoted in a paragraph in connection with the notice of Black Hawk's death, that his skin should be stuffed in such a manner, as "to represent with the greatest practical accuracy, the body it originally covered." But perhaps a better memorial than even this might be preserved of him; one at least of more practical utility to succeeding generations, and especially to members of the Veterinary Profession,—I mean his skeleton.

Many years ago, "Sainbel," the founder of the first Veterinary College in Britain, did much to bring both himself and his profession into repute in that country, by the publication of an "Essay on the Geometrical Proportions of the celebrated race horse Eclipse," from whom the best of our English blood-horses are still fain to count their descent. That Black Hawk will one day become equally noted and looked back to, as the type and progenitor of a breed of American trotting horses, as Eclipse has been of the English thorough-breds, I think there can be no reasonable doubts. And as to the geometrical proportions, and relative positions of the bones of the skeleton, that predispose to speed in trotting, are very different from those best adapted to galloping or jumping, and as the conformation suited to the one use, is at least equally worthy of scientific investigation as was the other, I think a better compliment could not be paid to the remains of Black Hawk, than what was given to his celebrated predecessor. A subject more interesting to the veterinary surgeon and equine anatomist, or more replete with instructive information for the scientific horse-breeder, could hardly, I think, be found, than a comparison of the mechanical proportions, and relative developments of the points of lineage and resistance

of the trotting horse with those of the racer. And never, perhaps, will a fitter or more worthy subject be got to compare with the proportion of Eclipse, than Black Hawk. Who among the *Vets* of the Union, (for I think it would almost be a disgrace upon us did any one but a veterinary surgeon do it,) will be the man to earn fame for himself, and do a service to his profession, by preparing the skeleton of Black Hawk, and giving us a synopsis of the anatomical deviations from the figure of the race horse, that are necessary to produce the fast, graceful, and durable trotter.

Of course, I am taking it for granted in the above suggestions, that the owner of Black Hawk would not make any more objections to this use of his bones, than to the stuffing of his skin; and indeed, the one preparation can hardly be properly accomplished without the other, as without the bony framework of the animal, either to give actual support to the artificial body on which the skin is spread, or to afford a guide for the dimensions and position of parts of whatever other contrivance is used for that purpose, it will be hard to hit the points of him, so as to bring them out in their natural perfection and character. Had Black Hawk died in British territory, and within any reasonable distance of your correspondent, and had his bones been attainable for the above purpose, and no one else had a prior claim on them, I should certainly have held it a professional privilege of no mean order, to have had their preparation. As I do not, under existing circumstances, consider myself entitled to any such distinction, I trust my professional brethren in the Union, who may read this through your pages, will take in good part the hint I have thrown out for them, and believe me,

Yours, very truly,

M. A. CUMING, V. S.

THE Boston Medical Journal mentions the following simple and economical apparatus for overcoming bad odors, and purifying any apartment where the air is loaded with noxious materials. Take one of any of the various kinds of glass lamps — for burning camphene, for example — and fill it with chloric ether, and light the wick. In a few minutes the object will be accomplished. In dissecting rooms, in the damp, deep vaults where drains allow the escape of offensive gases, in outbuildings, and in short in any spot where it is desirable to purify the atmosphere, burn one of these lamps. One tube charged with a wick is sufficient.

A LARGE FLOCK OF SHEEP.—A farmer in Illinois named Mc Connell has a flock of sheep which numbers twenty-one thousand of the choicest merinos.

ON THE SENSITIVE FACULTY OF A HORSE'S FOOT.

The sensitive faculty of the foot is to be found in its nervous and membranous tissues; for it is well known that the hoof, sole, bars and horny frog, are insensible,—the medium through which the sense of touch is developed or aroused.

By this wisely planned arrangement, a horse can, with considerable degree of accuracy, ascertain the nature of the ground over which he is travelling, and thus regulate the action and force of his limbs, so as to favor his feet, and lessen the concussion, which if he were destitute of this sense of feeling, must occur throughout the whole animal fabric.

As a familiar illustration of this peculiar sense of touch, suppose a person places in contact with his teeth, a piece of ice, or applies warm water to the same, he immediately experiences a sensation of heat or chillness, as the case may be. This occurs, simply by contact or touch; the teeth, like the hoof and its horny appendages, being devoid of sensibility; yet both have nervous filaments on their interior surfaces. Within the tooth we find the dental nerve, and within the hoof is also found a similar arrangement, only on a more extensive and magnificent plan. The teeth and hoofs, therefore, may be said to be analogous in function, so far as the transmission of sensibility is concerned, and at the same time they offer a wall of defence and protection to nerves, which are two delicate to come in contact with crude matter. Therefore, a horse's hoof is to the foot, just what the tooth is to the dental nerve.

Some horses, however, appear, while travelling over the road, to be governed by the sense of hearing, as well as that of sensation. Mr. Percivall has remarked, that "blind horses are observed to lift their fore legs in a manner that would indicate they are sounding the ground, after the fashion of a *blind-man* with a stick; therefore, they may be said to see with their feet.

HEALTH OF AMERICANS.—De Bow's mortality statistics, compiled from the last census, show that the people of the United States are the healthiest on the globe. The deaths are three hundred and twenty thousand per year, or one and a half per cent. of the population. In England the ratio is near two per cent., and in France nearly three per cent. Virginia and North Carolina are the healthiest of the States, and have six hundred and thirty-eight inhabitants over one hundred years of age. These figures, however, may all be reversed by the next census, for the medical schools were never more flourishing, twenty-six colleges having graduated last year, about thirteen hundred doctors.

SCIENTIFIC EXPERIMENT ON DOGS.—The canines, says the Philadelphia *Ledger*, captured by the dog catchers, are undergoing some interesting experiments, before being handed over to the manufacturer of oil and buttons. Two young physicians, Drs. Walton and Scholes, are endeavoring to obtain a more thorough knowledge of digestion by experimenting with the dogs condemned to death. Those selected as martyrs to the science are well fed upon meats, bread, &c., and then allowed to exist from a half to two hours. After killing them, the stomach is removed, and the work of digestion noted as well as the time employed in the interesting operation. Experiments were also made to ascertain the effects of strychnine, and chloroform as an antidote. One dog, just as he was, to all appearances, in the last agonies of death from the effects of the poison, had chloroform administered to him, and in a few minutes he entirely recovered, and ran about as if nothing had been given him. He was afterwards killed by a second dose of poison. The experiments seemed to give great satisfaction to those engaged in them, as well as Professor S. Jackson, who was present. The experiments are to be continued daily.

STRINGHALT.—Mr. Feron informs us, that this singular spasmodic affection is esteemed graceful in some continental countries; at least when it exists in both hinder legs, as it frequently does, being however usually confined to one side: very seldom indeed is it found in the fore, of which we have seen but one or two instances at the most. It is evidently a spasmodic contraction of some one or more of the flexors of the leg, which usually ceases after the animal is in motion; it is the consequence of local irritation or of pressure on some nervous fibrila, which the excitement of exercise renders less acute; and generally restores the action of the legs to its natural condition. It is not hereditary or congenital, and seldom appears until the approach to the adult age. It is injurious inasmuch as it unfits the horse for certain purposes, as racing, delaying the start so long, as to give away every advantage. It is considered incurable; and therefore any and all treatment is useless, save for experiment.—*Exchange.*

CHARLES LAMB'S OPINION OF WATER CURE.—"It is neither new nor wonderful, for it is as old as the deluge, when in my opinion it killed more than it cured." Yes: but it saved all that were worth saving: that is *our* opinion.

LETTER FROM CAPTAIN OLIVER, OF LAWRENCE, MASS.

ON RAISING FAST HORSES.

DR. GEO. H. DADD: — Dear Sir, — I enclose herewith $1.00, as my subscription to your valuable work, the "American Veterinary Journal." I would not be without it for five times the amount. The public are certainly under obligations for the great interest you are taking in the matter, and they ought to be thankful that one of so great experience in the subject as yourself, is at the head of the Journal.

I send you by the same mail, a copy of the Essex County Agricultural Report for 1856, in which you will see an article on Colts, written by myself. Mr. Crosby, of Andover, who owns a farm a short distance from mine, you will perceive, is the author of the article on Stallions. I thought I would draw your attention to the articles, from the fact that some of the papers considered us rather fast. Now I will leave it to yourself, if the subject is not treated fairly and candidly. It certainly was intended by both of us, to instruct the breeders of horses correctly, but by a Salem paper, which says, speaking of the articles, — "It will be an unfortunate day for the plain farmer, when he becomes enamored with fast horses, and turns jockey as a faster way of getting rich, and it will be equally unfortunate for our Agricultural Societies, if they depart from their *legitimate* sphere, to pander to the rage for coursers that outstrip the wind. Better stick to the *old* and slow methods," — one is led to presume we are wrong. Now I pretend to say, that it is for the interest of the farmer, and if he don't know it he ought to be taught, that if he can raise a colt worth, at five years old, five hundred dollars, he had better raise him than a miserable beast, worth at the same age, fifty dollars. The fact is, they will not depart from their old and worn out ideas, even to save their own souls. We do not ask them to turn jockey, or to be gamblers; far from it; but we do ask them to pay more attention to their choice of both sire and dam, and when their colts are in the world, to take care of them, give them even as much cover and care as they do their hogs, if they can do no better.

Yours, truly,

SAMUEL C. OLIVER.

Remarks by the Editor.—Never mind what the "Salem paper" says. You and Mr. Crosby are on the right track; it does not follow, because the "*plain farmer*" raises fast horses that he shall be-

come a "*jockey.*" Far from it; the *plain farmer* has neither time nor inclination to play jockey. If he raise good and fast colts, instead of the worthless crabs that abound in our cities and rural districts, he is improving in a department of agricultural husbandry, to which too little attention has hitherto been paid. Does the raising of superior sheep, cattle and swine, constitute a man a *jockey*, — or does it tend to jockeyism? No. If a man succeeds, by taking advantage of his own knowledge of the laws of chemistry as applied to agriculture, and obtains ninety bushels of corn from an acre of land, that never before produced more than sixty, is he not a public benefactor? And if so, he who aims to improve our breed of horses, is equally, with the former, entitled to the countenance and support of a discerning public. Every farmer, then, should become *enamored* with perfect fast horses, having in view the same object that stimulates him to produce good crops, superior cattle, sheep and swine.

"*Better stick to the old and slow methods!*" This is a decidedly rich text for this fast day and generation. The Salem man must be a member of some slow-coach society. He may preach such doctrine until dooms-day; his converts shall be few and far between. This is the age of progression. Improvements are treading on the heels of improvements, and the mighty intellect of man is actively engaged in devising ways and means to husband time, as for example, — by substituting for the old wooden plow of the Egyptians, the modern steam plow, which has now come into use. Compare the Egyptian method of agriculture with that of young America; and we here observe the benefits derived in consequence of *abandoning* "the old and slow method." It will never pay to "stick to the old and slow method;" the day of ignorance and superstition has passed by; the times require that we shall be up and doing, and make use of all the means which nature has furnished for the development of her resources. The *plain* farmer follows the pursuit of agriculture, as a means of obtaining an honest living. The raising of fine stock is, at the present day, the most remunerative part of that pursuit; consequently, good and fast horses can easily be disposed of, when, as regards the slow and indifferent animal, the very reverse is the case.

The Arabians stick *to slow and old methods*, in every thing save the raising of fast horses; yet, who ever presumes to charge them with *jockeyism*, or counsels them to raise less valuable ones? Our advice to the farmer, is to abandon the *old and slow method*, and raise both *fast* and *useful* horses; and if his breeding mare should bring forth an unpromising colt, that will never pay the cost of rearing, he had better destroy the latter, and next time make a wiser selection. Fast horses can always be disposed of for cash; an

article that many *plain* farmers often stand in need of; and at the same time they are useful on the farm for slow work. The "Godolphin Arabian," for example, was used in drawing a dirt cart in Paris, and "Columbus" was used in a brick-yard. No one ever knew that these horses were *fast*, while performing this sort of drudgery; their true speed was a matter of accidental discovery.

We are glad to find that Essex County can boast of such men as Messrs. Crosby and Oliver; their reports are creditable both to themselves and the society of which they are members. And we hope they will not falter in their progressive course, but continue to use their pens and influence, for the purpose of arousing the farming community to a sense of their individual interests.

We here present the reader with a selection from Capt. Oliver's Report:—

EXTRACT FROM A REPORT ON COLTS.

"The Horse Exhibition at Boston, which has lately closed so successfully and so satisfactorily, at once shows the propriety of raising none but superior stock. If we all are unable to raise an 'Ethan Allen,' or a 'Flora Temple,' let it be our aim to come as near them as possible, selecting none but the best of stock, and rearing them with the proper care. These exhibitions are certainly useful, and those who are engaged in getting them up, are entitled to great praise; for it will not be doubted that, next to the improvement of the human race, that of man's best friend and truest servant — the horse, very little his inferior, claims our attention. There is no better evidence needed to prove the respectability of this entertainment at Boston, than to point to the numbers that, notwithstanding the severity of the cold, have daily attended. The best citizens of Boston and its vicinity, with their wives and children, have patronized by thousands, at once setting aside the idea that the exhibition of horses leads to no good results. It is only the notion of the bigoted, who think it tends to evil, and those who look at all improvements with half an eye, and even that half closed when anything new is to be seen. They are those who, delighting in the name of 'old fogies,' take extreme pleasure in travelling on the road at a snail's pace, contented with getting to mill after the grindstone has ceased turning, or to church after benediction is pronounced, and the pastor half home on his 'roadster.' This exhibition will not be without its good influence amongst the farmers, and will show them—and they know their own interest as well as any other class of men,—that it is just as easy, and much more beneficial, to raise horses, which will sell as high as they were sold at the late Show, a four month's old colt selling for $1,000, and a

yearling for $2,000. The farmer, it is repeated, knows his interest, and will not be slow in taking advantage from the exhibition just closed; and we cannot better finish this article, than by using the words of the Boston Transcript, who says, 'On the comparatively unproductive soils of New England, mere farming is the least remunerative of the different classes of occupations into which the community is divided. It is impossible for the majority of farmers to make more than a bare living from the tillage of the earth. Some means of profit must be superadded, perhaps not exactly included in the general term of agriculture. Horse breeding is one of these. We suppose it will not be denied, that the hills and moors of New England are better adapted to grazing, and consequently the maintenance of the equine family, than to other agricultural purposes. Anything that turns the attention of all farmers to this subject, is of direct importance, then, to these busy producers.

'The mind of the agriculturist being directed to the raising of horses, it is of the last necessity that he should be acquainted with the best varieties, — those of the highest money value, because of their fleetness, as well as the species that are the most valuable for immediate practical uses, draught, &c. Certainly, no easier or cheaper way for the diffusion of this sort of knowledge, can be devised, than by the exhibition of the finest blood horses in one grand collection, where the spectator can have before him, at one glance, all the country can boast in the equine department.

'But there is one controlling consideration why horse fairs should become an institution in our land, arising from the fact that our people are blest with too few periods of relaxation and repose. As a consequence, the population wear themselves out in one-third less time than would suffice, were it not for the unceasing activity and constant restlessness that prevail. If by making these displays of the noblest of the domesticated tribe, of annual or periodical occurrence, any increase whatever can be added to the list of holidays, who shall not favor them?'"

MORTALITY AMONG HOGS.—The farmers on the Big Miami, from New Baltimore to Venice, Ohio, are losing large numbers of hogs by a severe epidemic. The Cincinnati (Ohio) Gazette says: "The farmers call the disease cholera; the spasms and other symptoms exhibit similar evidences of congestion to those manifested by human beings seized with that disorder. A. C. H. Cone, Esq., has lost 300 hogs, and L. B. Clarkson, Esq., over 200; neighboring farmers have lost in proportion. These were lively, healthy hogs, not still fed. A panic prevails among the hog-feeders of the above district, and they are selling off as fast as they can."

CLEANLINESS.

There is a proverb in the Levant, that "no prince ever died of the plague," which means that the many resources which opulence affords are preventives against contagion. Accordingly we find that in those Mahometan countries, where the plague rages with the greatest violence, but few of those who enjoy the first offices of the State are ever attacked with the distemper, although according to the precepts of Mahomet, they are obliged to appear in public at all times, and must comply with general custom in giving their hands to be kissed indiscriminately by every Moor who comes to beg justice, or throw himself under their protection.

At a time when the plague at Algiers destroyed many thousands of the populace, who easily caught the infection from their negligence respecting their persons, but *two* out of *three hundred* officers, belonging to the Dey's household, were attacked with this mortal sickness.

Nor is cleanliness beneficial only in contagious disorders. Filth engenders corruption, taints the atmosphere, and predisposes the system to disease. And when an epidemic prevails, those persons who are particularly cleanly in their habits, are less likely to become victims to indisposition, than those who pursue an opposite course.

The importance of well ventilated rooms, cannot be too strongly urged upon the attendants of the sick. A free circulation of air is not only beneficial to persons laboring under severe attacks of illness, but the preservation of the health of those who linger by the bedside of a diseased friend. It is said by medical men that there is no kind of *malaria* more pernicious and fatal in its effects, than *the poisonous atmosphere of an unventilated chamber where a person is suffering from a violent attack of an acute disease.* Here lies the mystery of the *contagiousness* of epidemics.

A celebrated English physician, (Dr. Smith on Fever,) says that "the room of a fever patient, in a small and heated apartment, in a populous city, with no circulation of fresh air, is perfectly analogous to a stagnant pool in Ethiopia, full of the bodies of dead locusts. Nature with her burning sun, her stilled and pent up wind, her stagnant and teeming marsh, manufactures plague on a large and fearful scale; poverty in her hut, covered with rags, surrounded with filth, striving with all her might to keep out the pure air, and to increase the heat, imitates nature but too successfully! the process and the product are the same—the only difference is the magnitude of the result. Penury and ignorance can thus, at any time and in any place, create a mortal plague."—*Sat. Eve. Post.*

UNRESTRAINED SALE OF POISONS.

Horrible crimes are continually being perpetrated in the United States by strychnine, arsenic, prussic acid, and other poisons which are on sale at the drug stores; and whoever calls for either, as a general thing, obtains the article he asks for, without being very minutely questioned. This is doing the whole community a great wrong. It is putting it within the power of a wicked wretch to murder any man, woman or child against whom he has a grudge, by the most subtle of all life-destroying agents known to science. There should be immediate legislation upon this important subject. Dreadful, indeed, have been the developments in England, of late, in regard to the criminal use of strychnine; and if it has not already come to light here that the same means have been employed with murderous designs, every individual is exposed to the dark insidious approach of those who have no fear of God before their eyes. An attempt was made in the Legislature of Massachusetts in the session of 1848, for the enactment of a law to oblige druggists and apothecaries to register the names of all persons to whom poisons were sold, their places of residence, and the intended use of them. If the applicants were unknown to them, unless a certificate of some well known, responsible citizen accompanied the application, the poison should be withheld.

Singular as it may appear, this very proper, and certainly judicious precaution, was made unpopular in the House, and voted down. Wiser action, it is to be hoped, will characterise the doings of a future Legislature, since the danger is becoming more imminent from an increase of crime, and the impunity with which it is perpetrated. Druggists themselves, we doubt not, for their own protection, would prefer to be licensed by the civil authorities to sell these terrible poisons.—*The Medical World.*

RULES FOR RESTORING THE DROWNED.

BY MARSHALL HALL, M. D., F. R. S.

The following rules are the result of half a year's investigation of apnœa and asphyxia — a subject which I propose to prosecute still further, knowing that truth only comes of long continued labor and research. I wish especially to put to the test of careful experiment, the correctness of the dogma, that if the heart has once ceased to beat, its action can never be restored — a dogma cal

culated to paralyze our efforts in many cases in which hope may really not be *totally* extinct: —

1. Treat the patient instantly on the spot, in the open air, except in severe weather, freely exposing the face, neck and chest, to the breeze.

2. Send with all speed for medical aid, and for articles of clothing, blankets, &c.

3. Place the patient gently on the face, with one arm under the forehead, so that any fluids may flow from the throat and mouth; and, without loss of time: —

I. — TO EXCITE RESPIRATION,

4. Turn the patient on his side, and — (1st.) Apply snuff or other irritant to the nostrils. (2d.) — Dash cold water on the face previously rubbed briskly until it is warm. If there be no success, again lose no time; but

II. — TO IMITATE RESPIRATION,

5. Replace the patient on his face; (when the tongue will then fall forward, and leave the entrance into the wind-pipe free;) then, —

6. Turn the body gently, but completely, on the side and a little beyond, (when *in*spiration will occur,) and then on the face, making gentle pressure along the back, (when *ex*piration will take place) alternately; these measures must be repeated deliberately, efficiently, and perseveringly, fifteen times in the minute, *only;* meanwhile,—

III. — TO INDUCE CIRCULATION AND WARMTH,

7. Rub the limbs *upwards*, with firm pressure and with energy, using handkerchiefs, &c., for towels.

8. Replace the patient's wet clothing by such covering as can be instantly procured, each bystander supplying a coat, waistcoat, &c.

These rules are founded on physiology; and whilst they comprise all that can be immediately done for the patient, exclude all apparatus, galvanism, the warm bath, &c., as useless, not to say injurious, especially the last of these; and all loss of time in removal, &c., as fatal.—*London Lancet.*

CEMENT TO MEND EARTHERN AND GLASS WARE.—The cement sold about the country as a great secret, is nothing more than shellac, melted and drawn out into sticks. Heat the article a little above boiling water heat, and apply a thin coating on both surfaces of the broken vessel, and when cold it will be as strong as it was originally.

RUPTURE OF THE INTESTINES.

WRITTEN FOR THIS JOURNAL, BY G. W. BOWLER, V. S., CINCINNATI, OHIO.

As the following case is one which seldom occurs, I presume it may be interesting to some of your readers. The patient was a chesnut gelding, six years old, and was brought to my Infirmary, to be treated for strain of the shoulder, for which difficulty I applied the usual remedies, and sent the horse home, to be seen by me in a couple of days. I went according to promise, on the second day, and found the horse well, with the exception of a slight swelling on the shoulder, caused by the remedies before applied. Gave a mild cathartic ball, and left. On the following day the owner called at my office, desiring me to call and see the horse, as his shoulder was much swollen. I accordingly went to see him, but found nothing wrong, further than a slight inflammation of the shoulder. On the following morning, on proceeding to my office, I was met by a messenger, requiring my immediate attendance on the "sorrel horse," as he had been taken very sick the previons night, and they were afraid he would die. I repaired to the stable immediately, when I was informed by the owner, that about eight o'clock, the previous night, the boy fed the horse on bran mash, and gave a bucket of cold water to drink; that immediately after having partaken of the water, he commenced to paw and roll about. It being late, and supposing it to be a slight attack of spasmodic colic, he undertook to administer a dose of turpentine, whiskey and pepper, when he appeared a little easier, but continued unwell throughout the night. When I first saw him, he was standing in the stall, with his head protruded, considerable anxiety displayed in the eyes, frequently gazing at his flank, pulse quick but thready, schniderian and conjunctivial membrame considerably injected, and lifficult respiration; he would occasionally lie down, when suddenly he would spring up again, as though attacked with a sudden and violent pain. I concluded there was inflammation of the intestines, and treated him accordingly, but had no hopes of his recovery. In the course of half an hour after having administered an enema, an operation was produced, which was thickly covered with mucus. He then appeared easier, laying perfectly still for upwards of twenty minutes, but the pulse scarcely perceptible, when I concluded he would shortly die. A spasmodic attack then seized him, from which he recovered for a short time, when he was seized again and expired.

I made a post mortem examination, which revealed considerable inflammation of the mucous membrame of the stomach and intes-

tines, and in the cavity of the abdomen a considerable quantity of food in a partly digested state, which I found had escaped from a rupture of the cæcum, about an inch and a half long, being unable to account for the cause. I should be pleased to hear if any of your friends have met with a similar case.

ANIMAL LIFE.

Incapable as water may seem to be of affording anything like solid nutriment, yet there are some tribes of animals that appear capable not only of subsisting on this, but upon even the still less substantial diet, air. Leeches and tadpoles, besides various kinds of fishes, (among which is the gold-fish,) will live upon water alone. Numerous experiments have been made by philosophers, to test the truth of this matter beyond peradventure. Rondelet kept a silver-fish in pure water alone for three years, and at the end of that period it had grown as large as the glass globe that contained it. Several species of the carp kind, it is said, have a similar power; and even the pike, one of the most voracious of the finny tribes, will thrive upon water in a marble basin. All kinds of amphibious animals are particularly tenacious of life, and not only frogs and toads, but tortoises, lizards and serpents, are well known to have existed for months, and even years, without other food than water, and in some cases, only air. It is stated on good authority, that a person once kept two horned snakes in a glass jar for two years, without giving them anything. It was not observed that they slept in the winter season, and they cast their skins as usual about the 1st of April. Lizards have been found imbedded in chalk rocks, and toads have been discovered in wood, blocks of marble, and other situations, where, to all appearance, they must have been entombed for many years. Snails and chameleons, it has been repeatedly asserted, will live upon air alone. It is also said that spiders will live on the same light diet, and that, though they will devour other food, they really do not need it to support life. Latreille confirms the statement by an experiment which he made with a spider, by sticking it to a cork, and precluding it from communication from anything else, for four successive months, and at the end of that time it was as lively as ever. A writer in the Philosophical Transactions states, that he has kept a beetle in a glass confinement three years without food. The larvæ of ants are not only supported on air, but actually grow in bulk. It would appear, however, from experiments made by M. Goldberry, in 1786, that the usually received opinion that the chameleon feeds on air, is a

vulgar error. He subjected seven of them to this ordeal, and they all died, save one, in three months and twenty-three days. So it would appear that they could survive, like many other animals, for a time upon the oxygen the atmosphere affords, but could not subsist upon it continuously. The instances we have cited, however, are sufficient to show that some animals require very little, and in some cases, not any, of what we usually denominate food, to support existence. Numerous instances might be cited where persons have survived many days without nutriment. A woman condemned to death, in the reign of Richard III., lived forty days without food or drink. A young lady, sixteen years of age, is mentioned in the Edinburgh Medical Essays, for 1720, who was thrown into such a violent tetanus, or rigidity of the muscles, by the death of her father, that she was unable to swallow for fifty-four days; and when she came into the natural state again, she declared that she had no sense of hunger or thirst. A still more extraordinary account than this, is related of a man, who on recovering from an imflammatory fever, had such a dislike to food of all kinds, that for eighteen years he never tasted anything but water. All will recollect the case of the sleeping man from Rochester, who was exhibited in this city last summer, and who had not partaken of food for a long time. Cats have been known to live over two years without drinking.—*N. Y. Times.*

HIGH PRICES FOR HORSES.

Porter's Spirit of the Times, in quoting the sale of "Lexington," from the Louisville Journal, says:—

"It is possibly true that Lexington has been disposed of by Mr. Ten Broeck, for $15,000, but the idea expressed that this is the highest price ever paid for any horse in the United States, is not only preposterous but ridiculous. Delivered here, Priam cost over $25,000. Rodolph sold for $18,000!—yes, Rodolph, the humbug. Monmouth Eclipse sold for $14,000! and was worth about twenty shillings. Post Boy, who was the Northern champion, and run against John Bascombe, (getting jolly well beaten,) was sold for $18,000! Neither he nor Bascombe were worth "*shucks*," and neither has been the sire of a winner fit to start for sour butter-milk. At the time of their death, he and Bertrand would have brought respectively, $35,000, though the latter was the far superior horse, and so proved the fact. Shark and Medley sold for $10,000 each; the former, when aged, got Mariner, (Fashion's half-brother,) and Medley got? ? The first was originally worth, as a stallion, twenty shillings; the second not the powder and shot that should kill him."

ON SOUNDNESS.

[Communicated for the "London Veterinarian," by T. D. Gregory, M. R. C. V. S., Bideford.]

A most important subject was introduced in your periodical for November last, by Mr. Hawthorn, of Kettering, relative to the examination of horses by veterinary surgeons for soundness. I regret the discrepancies of opinion which exist with regard to some diseases, and have consoled myself with the hope that, with your aid, something might be done to reconcile those conflicting views. In the remarks made by Mr. Hawthorn I most heartily concur; and with your permission I will endeavor to enlarge somewhat upon the subject. Many veterinary surgeons, after having been some years in practice, have thought it both proper aud expedient to pass over in their examination of horses many slight ailments that are considered legally and technically to constitute unsoundness; from the fact of their having seen horses, which, perhaps, years before they have rejected as unsound, continue to do strong work without those ailments in any possible way deteriorating from their real value or usefulness. But while some have thought fit to relax on this point, there are others equally experienced who still go on regarding any departure, however slight, from perfect and normal structure, to be unsoundness. They fear that should an animal be passed as sound by them it may be taken to another professional man and be rejected, thereby opening a door for disputes and litigation. I quite agree, therefore, with Mr. Hawthorn, that the whole matter should be revised by a number of experienced veterinary surgeons, and "in such a manner as to reduce the number of disputes which now make horse-causes a bye word and a disgrace to all parties." I hope by the quotation of the following cases to better illustrate the subject.

First. A horse is brought to me to be examined, I pass him sound with a *splint*. He is purchased by an inexperienced young gentleman and taken home. A few days after he is ridden to a meet of foxhounds. Of course, being a fresh one, he is scrutinized and pulled to pieces by the field, one of which, more knowing than the rest in horse matters, says, "A neat nag, very neat; but unsound I see." The young gentleman turns round quickly in his saddle. "Unsound! Nonsense. So-and-so passed him, and gave me a certificate of soundness," which certificate perhaps he pulls out of his waistcoat pocket. "I don't care," says the knowing one, "what So-and-so says; I say he has got a splint, and a horse with a splint is unsound." The young gentleman fidgets, and is uncomfortable. At that moment a fox breaks cover; the hounds

rattle him away, and a good run finishes with a kill. The horse goes well, and for a time the splint is forgotten. But the next morning the owner goes to the stable, feels his horse's legs — still the splint — consults the groom who pulls a long face, (perhaps he has not been "tipped,") and the consultation ends in the horse being sent to another veterinary surgeon to be examined, and he is pronounced to be unsound, he believing at the time he is right in what he has done. The horse is sent back to the seller; he refuses to receive him; an action at law is brought; the buyer may or may not get a verdict; one thing is certain, a great deal of money is spent; the two professional gentlemen figure in court; not very creditably in the eyes of the public; and the horse remains sound to the end of the chapter.

The second case I will select is a corn case; very similar to Mr. Hawthorn's. A horse was sold for [illegible] guineas, by a most respectable yeoman, a client of mine, to a gentleman, and by him taken home and ridden, quite sound and much to his satisfaction, for about a week, when he required shoeing. For this purpose he was taken to the forge of an eminent veterinary surgeon in this country, whose smith, in preparing the horse's fore feet, discovered slight corns. He told his master, and his master told the new purchaser that he considered him unsound, and recommended him to write to my friend. He did so, and enclosed a certificate to that effect. Some correspondence took place, which resulted in the matter being referred to us two veterinary surgeons. We met. The horse was examined, and it is true he had a slight corn in each fore foot; unquestionably brought about by neglected country shoeing. His feet were capitally shaped, and he trotted on the stones quite free from any lameness or tenderness whatever. We talked the case over, but could not agree as to the liability of my client taking back. I considered the ailment so slight that it would not be at all likely to interfere with him, and he contended that the horse was, legally speaking, unsound; but at the same time admitting, in all probability that in two or three shoeings the corns might be got rid of. We could come to no arrangement. Our employers, therefore, took the matter out of our hands, and settled it between themselves, like sensible men. The horse was kept at, I believe, the original price, and the expenses of an eighty mile journey for myself was paid me between them. We veterinary surgeons parted good friends, but each adhered to his opinion, and believed himself correct.

A third instance: A chestnut thorough-bred mare was purchased by a noble lord, of a friend of his, a baronet; both these officers in the regiment of Yeomanry Cavalry to which I am attached. A few days after she was taken home, the stud groom

BOSTON MEDICAL LIBRARY FEB 27 1908

discovered that the mare had a spavin. I was sent for to meet the gentlemen, and to give an opinion. I examined her, and true enough she had one of those enlargements called by dealers a "Jack," on, I think, the near hock. She ran perfectly sound, and with a considerable degree of freedom of action of the hocks. The baronet assured me that he, as well as his daughter, had ridden her for some time, and she had never shown any symptom of stiffness or lameness. I recommended her being kept, and gave them my opinion that she would not be likely to go lame from the ailment. My advice was taken; the mare is still in the possession of the noble lord, going quite sound, (being years since she was bought,) and is a most especial favorite of one of his sons. Had I not possessed the confidence of those gentlemen, and the mare had been sent to some other veterinary surgeon, there is little doubt but he would have rejected her, and much unpleasantness might have occurred.

Fourth case: A young bay horse was in dispute after purchase, on account of enlargements in the spavin-places, (but refused to be taken back on account of no warranty having been given,) and was said to be unsound in consequence by a respectable practitioner, although not a legalized veterinary surgeon. From some cause, about this time the horse fell off much in condition. It was said to be brought about from the pain he was suffering in his hocks, for which firing was recommended. My opinion was sought; I saw him move, and he went quite sound without the least perceptible limp. I disapproved of the firing, as I considered it uncalled for, and it was not resorted to. He was kept, and soon regained his health and condition. Two years after, he was sent to a fair and sold, but was rejected, on examination, by a member of the College for unsound hocks. He was taken home again, worked on, and is now, as he always has been, perfectly free from lameness, and can do his twelve miles an hour with ease. The enlargements were congenital, as I well remember him from his birth.

Fifth instance: A horse was rejected by a country practioner for an unsound eye. He was sent to me, when I examined him and found he had unnaturally enlarged corpora nigra, one of which was nearly as large as a tick-bean in one eye. I however, passed him as sound; and the eye has always remained the same, without causing shying. I once knew a member of the College reject a horse having this appearance in the eye.

I could go on, Messrs. Editors, multiplying cases until I filled the whole of your next month's number. I have known, and have seen horses rejected for slight string-halt; also for thorough-pins, and other bursal enlargements, and many times for *old* curbs.

But sufficient has been said for the present by Mr. Hawthorn and myself. I trust to call your attention, and that of the profession generally, to this subject. I do hope it will not be lost sight of. Let us see if a more organized plan cannot be adopted to further the end and object of veterinary jurisprudence.

Apologizing for my long epistle, I beg to remain,

Yours very truly. T. D. G.

EATING OF HUMAN FLESH BY SWINE.

The legend which ascribes to the eating of human flesh the origin of one of the most loathsome of diseases, scarce offers a more horrible picture to the imagination than is presented by a letter in the *Ceylon Examiner* of October. We have already alluded to the ravages made by cholera in India during the earlier part of this year. The last accounts inform us that this scourge has also devastated the beautiful islands of Mauritius and Bourbon. These islands are largely supplied with pork from Patna, a province of Hindostan that has itself been overrun by the cholera. Both there and at Calcutta the bodies of the natives are consigned to the Ganges, instead of being interred. "Let any person," says the writer in the Ceylon paper, "at daybreak start from the gates of Government House, Calcutta; and whether his walk be on the banks of the river, or to the banks of the canals, which on three sides surround the city, he will see pigs feeding on the dead bodies of the natives that have been thrown there during the night; during the day the river police clear away and sink all that remain of the bodies. Bad as is the metropolis of India, it is nothing compared to Patna. . . . . Hundreds upon hundreds of human corpses are there strewed along the strand; and fattening, Ghoule-like, upon these, are droves upon droves of swine. These swine are slaughtered, cut up and salted into hams, bacon, and pickled pork, and then despatched to Calcutta. . . . . The great market for this poisonous swine-produce in the Mauritius and Bourbon," where it is foisted on the inhabitants as the produce of Europe. Moreover, as these swine are sold in Calcutta at three or four shillings each carcass, it is stated that the inferior class of homeward-bound vessels are provisioned with them, and thus this human-fed pork is introduced into Europe and America. To the conclusion of the writer, that this is a probable cause of the spread of cholera, we do not assent. But we would call attention to the revolting scenes described by him; for it is in a British possession, and under the control of British rule, that these enormities are allowed to continue. — *London Lancet.*

APOPLECTIC HYDROCEPHALUS.

Proposition 1. *Apoplexia hydrocephalica* arises from the presence of water in the ventricles of the brain.— *Hooper.*

Proposition 2. In apoplexy, the animal falls down suddenly; there is an abolition, in some degree, of the powers of sensation and motion — the latter may be augmented, yet is involuntary; the patient is somewhat somnolent, the actions of the heart and respiration remain normal or not; yet the latter is performed with a stertorous noise.

CASE OF APOPLEXIA HYDROCEPHALICA.

The attention of the Editor of this Journal was recently called to a case of the above character which goes to show the importance of seeking early advice when a horse becomes the subject of disease. The subject was a bay gelding, eight years old, the property of Mr. G——, Medford, Mass. The owner furnished the following history of the case: — The animal had always been a prompt goer, and on the road was ambitious to outstrip anything that happened to come up behind. He always carried his head and ears erect, and was considered as rather nervous and irritable, but latterly, he had, apparently, become rather dull and slow in his paces, requiring a whip to bring him into a respectable gait. Finally the owner had him backed out of the stall, for the purpose of driving into Boston, and found, on harnessing him, that he was sick. He was returned to the stall, and next day our attention was called to him.

His Position. — He was standing in the stall with his head elevated to the highest altitude, his nose resting on a projection above the rack, some eight or nine feet from the floor; the extremities were pointed backwards, and the breast was pressed hard-up against the manger.

Present Symptoms. — The animal was somnolent, yet the least noise would arouse him, and when aroused he was attacked with violent stertorous breathing, at which time the eyes had a wild, vacant stare — the pupils being dilated. The conjunctivial membrane was flushed; the sclerotic injected; the schneiderian of a leaden hue, and the nostrils expanded. The pulse was about forty-five, not full, yet irregular; respiration scarcely disturbed. He had neither tasted food nor water during the past twelve hours.

We now requested the owner to unloosen the halter and make an attempt to back the animal a step or so, and as might be expected, he reared up and fell backward, and in a state of delirium or convulsion, threw himself about and dashed his head

against the sides of the stall, until he relapsed into a state of coma. In this state, in attempting to handle him, he would raise up on the fore quarters and fall backward, and then pant, perspire and again relapse into convulsions, accompanied by stetorous breathing. In this state the eyes appeared ready to start from their sockets. After the paroxysms had subsided, he would lay in in a state of insensibility, from which the least noise would arouse him, yet he was insensible to the prick of a pin, even when introduced into parts ordinarily possessing great sensibility. We remained with him two hours for the purpose of getting an opportunity to try the ordinary remedies, such as sedatives, cathartics, counter-irritants and, if necessary, the lancet, although we considered the case hopeless. Failing in all our attempts to administer, we left him, informing the owner that our services were of no use.

On the afternoon of the next day we visited the subject, and was informed that he had risen but once, and only stood for a short time. He was now lying in the middle of the floor, much emaciated, having a thready pulse; feeble, gasping respiration; the tongue hanging out of the mouth, it, and the lips pendulous; the membranes of the eye of a dull red color; the membranes of the mouth pale, yet of a blueish cast; the body icy cold, yet considerable heat over the frontal and parietal regions: in short, the finger of death was on him.

At the request of the owner he was destroyed, by severing the spinal cord.

By removing a portion of one of the parietal bones and the dura-mater, we had an opportunity of examining a part of the surface of the brain. It presented a very highly injected state of the blood-vessels, yet no extravasation. A small trocar and canula were plunged into the lateral ventricles, when an unusual quantity of serum escaped. In consequence of having barely time to reach the cars, ere they started for Boston, our autopsy here ended. The probability is, that, if this horse had been attended to so soon as the owner discovered signs of dullness, etc., he might possibly have been saved — at least, his life might have been preserved for some time.

It appears to us, that the serum found within the ventricles of the brain, must have been accumulating for some time; for the active type ("yet chronic form") of the inflammatory stage — denoted by the dull reddened surfaces, and ordinary pulsations — was of too brief a character to lead us to suppose that effusion resulted from primary inflammation or congestion, but rather, that the effusion was the consequence of chronic disease — a perverted action of the brain. Serum may accumulate in the ventricles of the brain in a

very insidious manner, as in hydrocele, ovarian dropsy, ascites, etc., etc., or, it may be the termination of acute disease of the brain.

As regards the causes of hydrocepalus, Dr. Whytt, who has published a valuable treatise on the subject, observes:—"The immediate cause of every dropsy is the same, viz.: such a state of the parts as makes the exhalents throw out a greater quantity of fluid than the absorbents can take up, he considers the state of the patient as consisting in either plethora or debility."

Our opinion is, that in some cases of this character—and the same applies to human females, the subjects of ovarian and other dropsies—that there exists a strong organic predisposition to the same. Yet, if hydrocephalus shall, as it is in some cases, be the result of acute disease, then it may exist without any organic predisposing tendency.

Dropsy of the brain, of a chronic character, having its origin in predisposition or debility, is accompanied by dullness, aversion to being moved, loss of appetite, feeble pulse, and unthrifty condition. This was the case as regards the *subject* of these remarks.

In treating a case of this character we should depend on mineral tonics, alternatives, diuretics, and counter-irritants. In the acute stage, the treatment must be antiphlogistic.

SCANDAL.—The devil has a wonderful penchant for rebuking sin. Eyes which are full of beams have an unaccountable clearness of vision in detecting motes in others' eyes. Some people are brought into the world to accomplish a marvellous mission, and that mission is to ferret out obliquities in others. Of course it is not expected that these apostles have any business with themselves; their mission is violent, and does not admit of time to scrutinise their own position. What profit is it that they should stop to consider their own pecadilloes, when the enormities of their neighbors loom up like mountains?

So goes it the world over. Everybody minds everybody's business, but everybody neglects his own. What sort of a world would this be, if we were without each other to feed upon? Men have eyes and ears for some purpose, and what else could they find for them to do, if not to hear and see each other's failings, derelictions, errors, transgressions, enormities. They have tongues which must stand uselessly idle, if not employed in giving currency to such delinquencies. So it is with man. The obliquities of his offended brother furnish the chief staple of conversational interest. Human error is the current coin of intercourse, and too often the coin comes from the mint of the speaker's brain.—*Exchange.*

BLOOD AND BOG SPAVIN.

The above diseases are of common occurrence in this country, and considerable speculation is afloat regarding the nature and treatment of the same. Many valuable horses have to submit to very harsh treatment, without any benefit; and in view of giving the reader a correct idea of the nature of these enlargements, we introduce the following article from "Elementary Lectures on Veterinary Science," by Surgeon Percivall:—

"In the human subject, the veins of the legs now and then become varicose, by which is meant, dilitation of their coats in consequence of preternatural distention. Under these circumstances, the valves in them perform but imperfectly their offices; the veins themselves become tortuous, bulge, and occasionally burst in various places, forming small tumors, or bloody ulcers, in the skin, which, from the appearance of the blood through them, are of a purple color.

"Such have many Veterinary writers* conceived to be the nature of blood-spavin—a disease that has no existence but in the pages of their works.

"The horse, as far as our observations have gone, is not troubled with varix; and we much doubt that the veins of this animal have become spontaneously varicose, though we have none whatever, that something like varix may have been produced in them by the remedies commonly recommended for the removal of a blood-spavin. We allude here to the use of ligature—a practice long exploded by the scientific Veterinarian.

"If you examine a horse said to have blood-spavin, (for it is by no means a very common occurrence,) you will perceive a soft fluctuating tumor upon the inner and forepart of the hock, in the course of the principal vein, which is at that part superficially placed. At first view of it you are convinced, from the unnatural prominence of the part, that there must be disease—and so there undoubtedly is—though it is not of that kind which its name so emphatically expresses.

"Dissection has fully developed its nature. There is placed here a little membranous bag, called a bursa mucosa, which contains, in a natural state, a certain quantity of synovial fluid; from a too copious secretion of which, it happens, now and then, that this sack becomes distended, preternaturally enlarged, and in this condition constitutes a disease, called bog-spavin.

"The vein, passing immediately over this bag, compressed and diminished in calibre by enlargement of it, cannot transmit blood,

* Bracken was the first who detected the fallacy of such an opinion.

at this part, with the usual facility or quickness; the consequence is, that a preternatural distension of it happens immediately below the tumid bursa, thence extending as low down as the first valve: and this has been taken for a varix, or some such thing, and denominated a blood-spavin.

"A blood-spavin, then, is purely a distention† of that vein which passes superficially over the inner and forepart of the hock-joint; solely produced by, and consequently co-existant with a bog-spavin.

"Be the cause of such obstruction, however, what it may, the same thing will happen; hence, if we tie this, or any other vein, we shall produce instantly, in truth, a blood-spavin, and probably, by allowing the ligature to continue, in process of time, a varix."

COWS FOR WORK.

One man in California plowed seventy-five acres with a cow-team, and at the same time milked them every day. Were I a girl, I would not marry a man that would work a cow-team. I should expect such a man to harness his wife to a wheelbarrow, and make her wheel stones and nurse children at the same time. What man of sense would use the unhealthy milk of a cow that was exhausted by daily toil? Women are often worked almost to death, while bearing and nursing children; and if the children are stillborn, or die from the effects of unhealthy milk, drawn from the breasts of the exhausted mothers, the priests tell them providence killed the children for some wise purpose, incomprehensible to man, and so they are left in ignorance, and the work of destruction goes on. But few children are born free from physical and mental infirmities, on account of the condition of their mothers; and of the few who are born healthy, a large portion are soon diseased by unatural dress and food. I have seen young children cross, fretful, uneasy, and always miserable, and only because their mothers were overworked, or destitute of the comforts of life.

The world has much to learn and to practice, before cow-teams and women-teams cease to curse their offspring with disease. Many a child is cursed through life with a fretful disposition inherited from its mother; when, had the mother been in different circumstances, the child would have been a pattern of quietness. Drive on, ye ignorant editors, with your cow-teams and women-teams, and see if the breeds do not deteriorate.—*Exchange.*

† We would call a varix a dilatation.

ON THE SALE OF BAD MEAT.

It is a well authenticated fact, that no *two* pigs ever wallow in the same mud-hole, "yet they frequently meet in the same sausage." And as regards oxen and sheep, the diseased generally separate themselves from the healthy, yet they also, occasionally meet in the same butcher's stall. There is a large amount of meat sold in our markets that is unfit for food, and consequently it must have an injurious effect on the consumers. We have occasionally visited markets, and have seen meat exposed for sale that was actually unfit for dogs; yet, customers enough can be found who are always ready to invest funds in cheap *fodder*. Some legislation seems necessary, in order to prevent the sale of diseased meat.

The following article from the "*Journal of Public Health*," may possibly serve to awaken an interest in this matter, and arouse the conservators of public health to a sense of duty: —

"SALE OF BAD MEAT IN LONDON. — A Committee, appointed by the Metropolitan Association of Medical Officers of Health, have just issued a report on the subject of unwholesome meat. The report shows — 1. That large quantities of unwholesome meat are sold in London. In the year 1855, 26 living animals, 612 entire carcasses, 696 quarters, 8 sides, and 227 joints of beef, mutton, veal and lamb, were seized as bad in the city, besides great numbers of poultry and game. But much meat which could not be sold in the city is sold in the suburbs. 2. That the signs of bad meat are *color*, which is either dingy or too bright; *smell*, which is peculiarly sour and sickening; and *a decided wetness of the meat and soft flabbiness*. 3. That there are also special signs of disease. 4. That illnesses are produced by the eating of bad meat, as tapeworm from measly pork, and poisoning from unsound meat badly cooked.

"This subject, discussed by the Committee, is most important; but we must, in all friendliness, say, that if the members of the Committee wish to direct public attention seriously to so great an evil, they must produce a much more vigorous, scientific, and concise report. To those interested in the subject of diseased animal food, we would direct attention to a series of replies by M. Soumille, of Avignon, to certain inquiries issued in 1854 by the Imperila and Central Society of Veterinary Medicine of France. — See *Gazette des Hopitaux*, October 14th, 1854."

MY HORSE.

With a glancing eye and curving mane,
He neighs and champs on the bridle-rein,
One spring, and his saddled back I press,
And ours is a common happiness!
'T is the rapture of motion — a hurrying cloud
When the loosened winds are breathing loud; —
A shaft from the painted Indian's bow, —
A bird in the pride of speed we go.

Dark thoughts that haunt me, where are ye now,
While the cleft air gratefully cools my brow,
And the dizzy earth seems reeling by,
And naught is at rest but the arching sky,
And the tramp of my steed, so swift and strong,
Is dearer than fame and sweeter than song!

There is life in the breeze as we hasten on;
With each bound some care of earth has gone,
And the languid pulse begins to play,
And the night of my soul is turned to day.
A richer verdure the earth o'erspreads,
Sparkles the streamlet more bright in the meads;
And its voice, to the flowers that bend above,
Is soft as the whisper of early love.
With fragrance spring-flowers have burdened the air,
And the blue-bird and robin are twittering there.

Lovely tokens of gladness, I marked ye not
When last I roamed o'er this self same spot.
Ah! then the deep shadows of Sorrow's mien
Fell like a blight on the happy scene,
And Nature, with all her love and grace,
In the depths of the spirit could find no place.

So the vexed breast of the mountain lake,
When wind and rain mad revelry make,
Turbid and gloomy and wildly tossed,
Retains no trace of the beauty lost:
But when through the moist air, bright and warm,
The sun looks down with his golden charm,
And clouds have fled, and the wind is lull,
Oh! then the changed lake, how beautiful!

The glistening trees in their shady ranks,
And the ewe, with her lamb, along its banks,
And the king-fisher perched on the wither'd bough,
And the pure blue heaven all pictured below!

Bound proudly, my steed; nor bound proudly in vain,
Since thy master is now himself again.
And thine be the praise, when medical power
Is idle, to conquer the darkened hour —
By the might of thy sounding hoof, to win
Beauty without and a joy within;
Beauty, else to my eyes unseen,
And joy, that then had a stranger been.

Ohio Valley Farmer.

REPRODUCTIVE POWER OF FILTH.

A single atom of Spanish moss attaches itself to a southern tree, every moment and hour, day and night, summer and winter, it steadily extends itself, until the whole tree is hung in the drapery of death.

The toad-stool mushroom, so deadly in its nature, is the work of a night, and augments with wonderful rapidity.

So it is with a low grade of animal and vegetable growth, which feeds on filth, and reproduces itself with the utmost celerity, thus spreading its area, and concentrating its corruptive and destructive agencies, sweeping away human life like chaff.

These pernicious growths, scarcely themselves perceptible to the naked eye, have something immeasurably more minute, which answer to seeds, which flying in every direction, and attaching themselves to all moist surfaces, begin instantly to grow. Thus it is that spots of neglected filth need but a little moisture and warmth to breed their deadly contagions, and scatter their leprous diseases far and wide.

Let every family, then, remember that each particle of damp dirt about their dwellings is a plague spot, and let every servant and child be visited with the severest reproof, who knowingly permits its continuance for a single moment.

MEDICAL WITNESSES' EXPENSES.—*Special Agreement*—At the Southampton (Eng.) County Court, an action was brought by Mr. Weston, Surgeon, of Shirley, to recover an account, in which the only disputed item was a charge of 12 guineas for attendance for four days at the assizes at Winchester, to give evidence in a case of criminal assault on the daughter of defendant. The plaintiff had not been examined by the magistrates, nor subpœned, and he refused to attend at the assizes, unless on a special agreement that he should be paid his expenses and two guineas a day. The solicitor for the defendant said that, though the plaintiff was not subpœned, he went to Winchester in the character of a witness, and was entitled to no more than the county allowance, £4 11*s.* 6*d.*, which he had received. After a legal argument of some length, his Honor said, the proof as to the special agreement was unanswerable, and directed payment of the whole amount.—*Med. Times and Gazette.*

SCHOOLMASTER AND PUPILS.

"Joseph, where is Africa!"

"On the map, sir."

"I mean, Joseph, on what continent — the Eastern or Western continent!"

"Well, the land of Africa is in the Eastern continent, but the people, all of 'em down South."

"How do the African people live?"

"By drawing."

"Drawing what — water?"

"No, sir; by drawing their breath."

"Sit down, Joseph. Thomas, what is the equator?"

"Why, sir, it is a horizontal pole running perpendicular through the imagination of old astronomers and geographers."

"Go to your seat, Thomas. William Stigs, what do you mean by an eclipse?"

"An old race horse, sir."

"Silence. Class is dismissed."—*Exchange.*

MILKING.—The *Massachusetts Ploughman* says: The milker should sit close to the cow, and should endeavor by all means, to be on good terms with her; for if he scolds and kicks, she will be quite likely to return the compliment. Sit close, and let the left arm be in contact with the leg of the cow; then she cannot set her foot into the pail if she is disposed to do it. She cannot kick while her leg is in contact with your left arm, for a blow requires space between the agent and the object. The best milker is he who is quickest, for there will be a flow in less than a minute from the commencement of the process. Take advantage of this, and not let the milk flow back again. *Milk out all that the cow will give*, for the last of the milk, or the strippings, is worth more than four times as much for butter as the milk that first comes.

GLASS MILK PANS.—A farmer in Akron, Ohio, has been experimenting with milk in glass pans made by Gray, Hemingray, & Co., of Cincinnati, and furnishes the result to the *Ohio Farmer:* "I took the milk of the same cow, milked at the same time and divided it equally, putting half in a *glass* pan, and half in a tin pan, and placed them side by side. In the first twenty-four hours, were two thunder showers; and, at the end of that time, the milk in the tin pan was sour; that in the glass pan was sweet and good. At the end of twelve hours more, that in the tin was thick *clabber* or *lobbered*, as the Yankees call it, and that in the glass *began* to turn. From this, I believe, glass pans will preserve milk one-third longer than tin pans. Will our dairymen try it?

MORTALITY AMONG HORSES.—In estimating the mortality among horses according to age, we find the fewest deaths among nine-year old horses, viz., 51 per 1000. Among those thirteen years old and upwards, 54 per 1000. The maximum of deaths occurred at six years of age, viz., 83 per 1000. Next to these, come horses of eight years old, 77 per 1000. In the other ages, the mortality has fluctuated between 60 and 67 per 1000. We have endeavored in vain to shew cause for the surprising difference between the mortality of the eighth and ninth years, two periods seemingly so alike. —*London Veterinarian.*

A friend of that noble animal, the horse, suggests the necessity of warming the bits on the bridles before putting them in the horses' mouths. The temperature of the air is such as to make the iron, when put into their mouths, set like hot iron, and give them much pain. To prove it, put your tongue in contact with a piece of cold iron out of doors, and find how easily it will take the skin off.—*Tenn. Farmer.*

According to Professor Lehman, the amount of gastric fluid secreted by a dog in 24 hours, equals one-tenth the weight of the whole body. 100 grs. of recent gastric juice are capable of dissolving from three to five grains of coagulated albumen. A dog needs daily, for the perfect maintenance of all the physiological functions, 50 grains of flesh containing 10 grains of albuminates) for every 1,000 grains of its weight. It secretes, however, only 100 grains of gastric juice for every 1,000 grs. of its weight, only one half the amount capable of dissolving the albuminates of the flesh. Hence, a large portion of the protein bodies must pass out of the stomach undigested.

ITEMS FOR ALL.

THE manure of milch cows is said to be deficient in phosphates.

Charcoal is an excellent agent for the preservation of root crops.

The smallest potatoes sometimes produce the largest crops; hence, we should not despise "*small potatoes.*"

THE MOST HONORABLE PURSUIT.—The agricultural press contend that *agriculture* is the most honorable pursuit. Our theologians contend that the ministry is the most honorable: and the lawyer, that his mode of acquiring a fortune is second to no other. Now, we contend that the practice of veterinary medicine is the most *honorable pursuit.* And (let us whisper in your ear, dear reader,) it is the most useful and *profitable,* as well as *honorable.* What pursuit can be more honorable than that which contemplates and provides for the restoration of health in a sick and suffering animal—one that has no means of enlisting our sympathies? What science, excepting that calculated to benefit the health of the *lords* of creation, can compare with it? Some people are disposed to place a low estimate on the value of veterinary science, merely because a few uneducated men have succeeded in palming themselves on the husbandmen as legitimate practitioners; but we can prove,

with all due respect to the science of agriculture and other sciences, that *veterinary science* is the most *honorable* pursuit.

THE Editors of the "*Valley Farmer*," in allusion to the death of "Black Hawk" and "Black Warrior," thus lament them:—

"Their course is run,
Their errand done—
Peace to their ashes."

A SINGULAR RELIGIOUS EXPERIENCE.—At a watch-meeting held in this city on New Year's eve, an old standard of the fold in talking against time, to bring in the New Year, related his experience for the amusement and edification of the brethren, and entering very minutely into the circumstances of his conversion, among other things stated that he felt very bad, and did not know what ailed him; that he went to a doctor and was bled, for which old Lancet charged him a quarter, *although he held the dish himself*, and it was all waste, for he was not sick, but only under conviction.—*Bangor Journal.*

FUMIGATING POWDER FOR FOUL STABLES AND COW-SHEDS.—Take of powdered saltpetre one ounce, chamomile flowers and anniseed, one ounce each; mix. Put some hot cinders on a shovel, sprinkle, gradually, a portion of the above on the burning embers: it deodorizes the barn, or shed, and purifies the atmosphere.

GROUND OATS.—Several horse-owners who have tried the experiment of feeding ground oats, state that their horses look, and work much better, than when fed on double the quantity of Indian meal.

PRICE OF FLOUR.—What is the reason that we of Massachusetts have to pay such an exorbitant price for flour? It is now selling in the New York market at the following low figures:—Common State, $5.87 to $6.12½; extra, $6.31 to $6.75; superior Western, $6.39; Genessee, $7.37. In this vicinity, $9.50 to $10.00.

EDITOR'S DRAWER.

From the enterprising publishers, Messrs. Lippincott & Co., Philadelphia, we have received a copy of the January number of "*The North American Medico-Chirurgical Review*, a bi-monthly journal, edited by S. D. Gross, M. D., Professor of Surgery in the Jefferson Medical College, Philadelphia, and T. G. Richardson, M. D., Professor of Anatomy in the same University. Price four dollars per annum. By the publishers' prospectus we learn that they have purchased of the late proprietors, their interest in *The Philadelphia Medical Examiner*—a well-known and deservedly popular journal—and also *The Louisville Review*—a periodical highly appreciated by the profession in all parts of the country. These two journals have been combined under the above head, and Drs. Gross and Richardson, the late editors of *The Louisville Review*, aided by some of the most distinguished medical writers of the day, propose to establish, upon a pure and independent basis, a truly *National Medical Journal.* That they may succeed, is our earnest wish.

Our thanks are due to J. C. Holmes, Esq., Secretary of the Michigan State Society, for a copy of "Transactions of the State Agricultural Society, including Reports of the County Agricultural Societies, for the year 1855." This valuable work is got up by one who is eminently qualified to perform so laborious and important a duty. It contains over 800 pages of closely printed matter, the results of experiments, investigations, observations and conclusions, of some of the most enterprising husbandmen of the State of Michigan.

During our late visit to New Bedford, Mass., we spent a few hours in the company of Dr. Charles Scrutton, a Veterinary practitioner of that city. He appears to be well informed on the subject of his profession, and enjoys the confidence of a large

number of New Bedford's most respectable inhabitants. We are indebted to the Doctor for his attention on the above occasion, and also for his efforts in procuring subscribers.

APPOINTMENT OF THE EDITOR.

Washington, Jan. 26th, 1857.

DR. GEORGE H. DADD,—Sir:—At the recent session of the United States Agricultural Society, it was

Resolved, That a committee of five be appointed by this Society to inquire into the origin, cause, effects, and extent of the disease which has appeared in this country, denominated the "hog cholera," now said to prevail to an alarming extent in some of the States.

Resolved, That said committee be directed to ascertain the most approved modes of treatment for swine thus diseased.

I would respectfully notify you that you was appointed a member of this committee, of which the Hon. C. L. Flint, Sec. Mass. State Board of Agriculture, is Chairman.

Your Obedient Servant,

BEN PERLEY POORE, Sec. U. S. A. S.

Persons who have any communications to offer on the above epizootic now raging in various States, are respectfully requested to communicate with the Editor of this Journal.

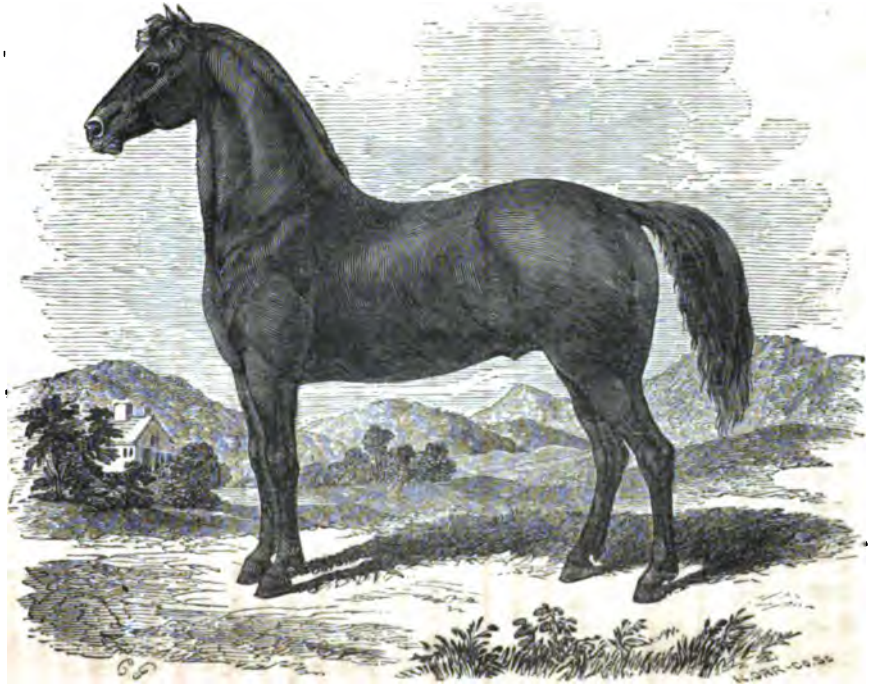
AUTHORIZED AGENT FOR THE WESTERN STATES. — Alonzo Thompson is our only authorized agent for the Western States, and every subscriber who entrusts money in his hands, will be sure to receive the Journal, or any other books they may desire to obtain. Mr. Thompson will call upon some of our editorial friends at the West; and any attentions they may think proper so show him, will be duly acknowledged by the Editor and Publisher of this Journal.

VETERINARY SURGEONS WANTED.—In almost every large city throughout the United States, there is an excellent opportunity for a *qualified* veterinary surgeon to make a handsome living. The Editor of this Journal is in possession of a number of communications from agriculturists, lamenting the scarcity of educated surgeons. In connection with this subject, the Editor would inform those desirous of acquiring a knowledge of the fundamental principles of veterinary science, that the city of Boston has better facilities for the instruction of young men in this department, than any other city in the Union. For further particulars address the Editor.

VETERINARY ANATOMICAL PLATES.—The Editor of this Journal has in course of preparation a series of anatomical plates, descriptive of the organized structures of the Horse, They will be executed in elegant style, by artists of acknowledged skill. The first will be ready in the course of the present week. It consists of an enlarged and descriptive view of the brain, its nerves and its arteries: colored. Price, $2,00. 25 per cent. off to those who purchase to retail. This plate, aside from its practical value, makes, when framed, a handsome engraving to adorn a physician's office, the counting-room, or the parlor. Will our veterinary friends aid us in this enterprise?

THE NEXT PLATE, which will also soon be ready, represents the ages of horses as shown by their teeth. This will be one of the most magnificent and useful plates ever offered to the American public. Price $1,00. 25 per cent off as above.

We will furnish the plate of the "Brain, nerves, and arteries, colored," and eight copies of this Journal, for the sum of eight dollars. For the sum of four dollars, we will furnish the "Plate of the mouth and teeth," and four copies of this Journal.—This offers a good inducement for our friends to aid us in getting up clubs.



JUSTIN MORGAN.

(See page 28th.)

Published in Vol. 1 as GIFFORD MORGAN, JR., from Linsley's History of Morgan Horses.
Published by C. M. Saxton & Co., 140 Fulton Street, New-York.

THE AMERICAN

Veterinary Journal.

DEVOTED TO THE DIFFUSION OF VETERINARY KNOWLEDGE.

Edited by GEORGE H. DADD, Veterinary Surgeon.

Published by S. N. THOMPSON & Co, 97 Union Street.

PRICE, ONE DOLLAR PER ANNUM.

VOL. II. BOSTON, MASS., MARCH, 1857. NO. 3.

DEATH OF A VETERINARY SURGEON FROM ABSORPTION OF ANIMAL POISON.

To the Editor of the American Veterinary Journal:

Dear Sir, — Having recently received intelligence of the death of my Friend and Brother Practioner, (in the Island of Antigua, W. I.,) Mr. Thomas Shaw, in rather a sudden and singular manner, I wish you to answer a few queries on the subject, and also to give publicity to the same, in view of warning others of the craft, so that they may be led to adopt the necessary precautions against the absorption of morbific matter.

The particulars are these: — Mr. Shaw was sent for on Sunday, December 21st, 1856, to "High Point" Estate, to make an autopsy of an ox, supposed to have been poisoned. (I am not in possession of *his* opinion on the result of this examination.) He began to fail on Tuesday, and died the next day, unconscious. It is stated that the Doctor had a sore or pustule, on his hand at the time of making the examination. An inquest was held on the body of said Dr. Shaw, and a verdict returned that death resulted from opening said ox.

Query 1st. — Did the Doctor absorb — for I presume that is the process by which he was affected — the poison by which the animal is supposed to have died? Or was it from the absorption of morbid virus generated after the death of the animal?

Query 2d. — Cannot such results occur, when we are certain that there are no poisonous agents in the system — the animal being in a pathological condition?

Query 3d. — And if the latter be true, what is to be done then? A request made to a veterinary surgeon, to hold a post mortem examination, is, under such circumstances, equivalent to a sentence of death!

If I am not mistaken, I have seen an article in your Journal, written by Dr. Cleveland, testifying to my last proposition.

Query 4th. — What would be the appearances of the internal viscera after the death of an animal having been poisoned by corrosive sublimate, or arsenic, and what are the best tests for the same?

Hoping I have not encroached on your time,

I remain, Dear Sir, yours respectfully,

J. BYRNE, V. S.

ANSWERS, BY THE EDITOR.

Very many students and distinguished surgeons have lost their lives in conducting autopsies and in dissections, merely by puncturing a finger, or they having an abraded surface on the hand — by which means the morbid virus of the *dead* subject enters the superficial absorbents of the *living*, and thus produces effects, more or less violent, in exact ratio to the health of the inoculated individual. The absorption of the smallest portion of morbid *animal* virus, is, in a great majority of cases, sufficient to produce death. Persons of peculiar idiosyncrasies — those in a state of debility, arising from excesses of every kind, and others, subject to cutaneous affections, are more susceptible to the influence of morbid fermentation. Once introduced into their systems, there is little hope for them.

Query 1st. — In the absence of all proof that the ox was poisoned, (his *death by poison* resting on a mere supposition,) we shall decide that Dr. Shaw's death arose from the absorption of morbid virus. In a warm climate like that of Antigua, an animal no sooner dies than decomposition of the animal tissues commences, and progresses with fearful rapidity; and should the animal die of a disease of epizootic, or putrid type, decomposition is still more rapid, and the danger of *absorption* is augmented. Hence, in warm climates, it is a dangerous business for a man in either of the above predicaments, to conduct autopsies. The morbid *animal* poison, under the above circumstances, would be more likely to produce the death of an individual, than the poison with which an animal may be destroyed. The poison generated by fermentation, or decomposition, is generally more subtle on man than the ordinary agents used to destroy the life of animals.

The foregoing answer to query 1st, also disposes of query 2d.

Query 3d. — In regard to prevention, we quote Dr. L——, from Tuson's Dissector: — "Attention must be paid to the diet; the food should be nutritious and generous; dissections should never be prosecuted when the body and mind are debilitated; avoid all excesses of fluids or solids. Temperance is strictly necessary. Wounds received during dissection, should not be neglected; and no one having an abraded surface, or sore on his hands, should ever dissect." In view of preventing the fatal effects likely to result from absorption, an abrasion should be immediately covered with collodion. If pricked, the liquid muriate of ammonia, or caustic potassa should be applied; but after absorption has taken place, the treatment involves both *local* and *constitutional* remedies. It is a general practice with us, when making an autopsy, to smear the hands and wrists with some oleaginous preparation, in view of guarding against absorption.

Query 4th. — The appearances after death from corrosive sublimate, are, — the stomach and intestines highly inflamed and ulcerated in patches; the texture of the mucous membrane of the latter partly destroyed, and in some parts corroded. The lungs, liver and kidneys are congested, and the membrane lining the air-passages is much reddened. The conjunctival membrane is highly injected, and the blood throughout the body is uncoagulated. Before the animal dies, super-purgation sets in; the fœcal matter is abundant, and very offensive.

The tests for corrosive sublimate, recommended by Mr. Morton, are — "*Lime water*, which throws down an orange-yellow precipitate — the hydrated binoxide of mereury; *Iodide of Potassium*, which gives a beautiful scarlet compound — the biniodide of mercury; *Sulphuretted Hydrogen*, which gives a blackish compound — sulphuret of mercury. The disorganized tissues will often yield a sufficiency of the poison for analysis."

The appearances after death, as recorded by Prof. Morton, when arsenic has been administered, are as follows: — "The stomach and intestines, especially the latter, highly inflamed and ulcerated in patches. The cæcum and colon present the most marked action — the villous coat being black from an effusion of altered blood, and the peritoneal coat involved. Congestion of blood in the lungs and kidneys; redness of the lining membrane of the windpipe, extending to the air-passages generally; conjunctival membrane highly injected and the blood in a fluid state. Ecchymosis of the heart."

For information regarding the tests for arsenic, we refer our correspondents to "Morton's Toxicological Chart."

In reference to the absorption of animal poison, we would further

remark, that many cases of absorption, resulting in the death of individuals are quite fresh in our memory; and among the number is the following: — In the town of Sterling, Mass., a farmer had lost, from year to year, up to 1849, over twenty-five head of cattle, in a manner that appeared very mysterious. On going to the barn one morning, he found two of his best cattle dead, and bloated to an enormous size. Two individuals of intemperate habits made an autopsy, and in their bungling method of conducting the same, both managed to wound themselves. In the course of two or three days they died, and everybody concluded that the oxen were poisoned. We afterwards made an autopsy of another ox, which, according to the owner's testimony and that of his men, died in precisely the same manner — and we suffered no inconvenience from the same. The post mortem appearances were decidedly against the "poisoning theory." But we gathered facts sufficient to show that an endemic disease raged in the precincts of this farm, assuming all the well marked symptoms of acute indigestion.

In view of enlightening our readers on the subject of absorption of animal poisons, we introduce the following article, selected from a chemical lecture delivered by George Burrows, M. D., F. R. S., published in the "Medical Times and Gazette":—

"There is, as you know, a very large and very important class of diseases depending upon the introduction of an animal poison into the system; and one striking feature of all such diseases is the appearance of an eruption upon the skin, accompanied with a peculiar kind of constitutional disturbance or distress. The animal poisons which are capable of producing such diseases are various; and these poisons are sometimes generated by human beings, and sometimes by the lower animals. The modes by which the animal poison may be introduced into the human system are also various. It may be introduced artificially or accidentally, sometimes into the blood vessels and sometimes into the tissue of an animal; and the same poison may be introduced by the process of inoculation. I say the poison may be introduced in various ways: it may be in a direct manner, the poison being taken from one animal, and introduced either into the blood-vessels or into the tissues of another animal, by a process which we call *inoculation;* and at other times it would seem that the poison is merely conveyed from the surface of the diseased animal to that of the healthy person by contact — what we commonly call *contagion.* Or this animal poison may be of a volatile nature; it may be susceptible of solution or suspension in the atmosphere, and may emanate from the sick either by the breath, or by cutaneous exhalation; or by effluvia from alvine and other secretions: and thus it may effect those who come within certain range either of the sick man or diseased animal.

"All these diseases arising from animal poisons, and propagated either through inoculation, or contagion, or infection, appear to be subject to certain general laws; and to these, perhaps, I may as well advert before I bring under your notice a very remarkable case of disease resulting from the introduction of an animal poison by means of inoculation. The poison in the case to which I allude was derived from the skin or from the other parts of the sheep's head, and introduced into the system by means of a butcher's knife. The general laws to which I have just alluded as governing those diseases dependent upon animal poisons, are more especially applicable, of course, to those poisons which are generated within the human body; although if we had greater knowledge of the diseases which result from poisons generated within the bodies of brutes, the same or analogous laws would probably be found to hold good also in them.

"First, then, with respect to these laws relating to animal poisons, we observe that each peculiar poison has the power of exciting certain definite and specific actions when introduced into a healthy organization. And, secondly, there appears to be a period of latency, a period of incubation in the system (varying in different poisons,) before the specific morbid actions are set up in the healthy system into which the poison has been introduced. And, thirdly, we observe that the specific morbid effects resulting from the introduction of the animal poison vary somewhat in different individuals, apparently varying according to the intensity of the poison — the dose of the poison, I may term it, imbibed, and the predisposition of the individual infected. Now, these laws to which I have thus adverted are particularly exemplified in cases of variola and rubeola, scarlatina, and typhus, according as these diseases occur sporadically or in the course of epidemics. Each of these animal poisons is productive of certain definite local morbid actions, which are not accidental but governed by certain laws. Some of these poisons, we observe, excite a specific morbid action upon one membrane or organ, or upon one system of organs; others appear to excite specific morbid actions upon two membranes or organs, and others, perhaps, upon three. Now, these observations more especially refer to those animal poisons which are generated by human beings, and which are capable of being transmitted into the system of other human beings who are previously in a state of health. But the animal poisons which are generated by brutes, and which may be introduced into the system, and are capable of producing particular diseases — these are probably governed by analogous laws. For example, in that disease of this class with which we are most familiar, namely, vaccinia, or cow-pox — the disease which is introduced into the human system from the cow —

these laws to which I have adverted are most evident; again, in that disease which is contracted by man from the horse, the glanders, a certain train of specific morbid actions is observed; and, also, in that more rare disease to which butchers are subject when they wound themselves in slaughtering oxen in a diseased state; and in the disease sometimes called malignant pustule, certain definite morbid actions also ensue.

"Now, after these preliminary observations, I am about to describe a peculiar disease, which I believe to be derived from the sheep, — a disease, as far as I know, not hitherto described or adverted to by systematic writers. I have myself only seen two examples of this disease: they both occurred in young butchers, who had wounded themselves while cutting up sheep's heads, or dressing them for sale. The disease consists essentially of an abundant eruption of successive crops of vesicles and bullæ, of various sizes. These vesicles and bullæ are in some parts isolated from each other, and in other parts more numerous, and congregated together, — what we call confluent. These vesicles and bullæ appear principally upon the finer and more delicate portions of the skin and body, about the cheeks, the lips, beneath the chin, on the throat, the breast, upon the upper and lower extremities. These vesicles, or bullæ, however, are not confined simply to the cutaneous surface; they are found also upon the conjunctiva, upon the mucous membrane lining the lips, upon a soft palate, and perhaps, also, similar vesicles might be found on the lining membrane of the nostrils and of the pharynx. During the continuance of the disease, a discharge of mucus exudes from these parts, the nostrils and pharynx. The external appearance of this eruption generally resembles that of acute pemphigus, but not altogether; for we observe, that in some parts this vesicular eruption more closely resembles the aggravated form of herpes, the vesicles being small and congregated together, with inflamed margins. In other parts, the vesicles are larger, and isolated, the eruption more closely resembling pemphigus; in other parts, the surface appears blistered, as by the action of boiling water. The whole of the cuticle of a certain portion, one of the extremities (for example,) is raised in continuous blisters, running into one another, as if the surface had been irritated by the action of boiling water.

"This is the general character of the eruption of the peculiar disease in question. Now, I will proceed to detail the symptoms of the particular case to which I have adverted.

"On the 8th of April, there was admitted into Matthew ward, a young man named Charles Handsdale. The following is the account which he gave of himself: —

"'He is a single man, in good circumstances, of healthy parents,

living at Barnet. He states that five weeks ago, while cutting a fresh sheep's head, the knife slipped and cut his left thumb. He remembers the sheep's lung was full of 'white knobs;' but he remained perfectly well (with the exception of the thumb being incised, and subsequently discharging,) till Saturday, April 5th, without any symptoms of fever. He then noticed a spot upon his lip, which he states was like a scald; then a discharge from the eyes came on, but no headache and no shivering; and these spots gradually increased about his face and hands, till the disease had the appearance that it presented on admission.

"On April 8th, when admitted, his condition was as follows:— On his face, more especially about the chin, was a crop of small bullæ about the size of split peas. There were also similar spots on the mucous lining of the lip, as well as on the edge of the tongue, and on the soft palate and uvula. There was also a purulent discharge from the left eyelids. On the back of the hands were some red elevated spots commencing to be papular. There were also about his abdomen and back, and the upper part of his thighs, many red elevated spots.

"When I saw him on the following morning, his expression was anxious; face flushed; eyes suffused; accompanied with a purulent discharge from the inner canthus of the left eye and the outer canthus of the right. There was also a purulent discharge from the right nostril. Lips dry. About his face, below the chin, there was an abundant crop of bullæ, which to-day seem to be of a more pustular character. They are also increased in size, some being larger than a fourpenny-piece. Around each of the bullæ the cutis seemed inflamed. A few were now observed on the hairy scalp. The eruption was seen about the hands, around the wrists, extending up the inner aspect of the forearms. A similar eruption was also detected in each iliac region, the inner aspect of the thighs, upon the scrotum, upon the penis, and upon the back of the trunk; also upon each foot, about the ankle, and along the tarsus. Some of these bullæ were very minute, and others larger about the size of split peas. As I have already said, the eruption was confined to the finer parts of the skin; in those parts where the cuticle was thickened,— on the outer aspect of the arm and thigh, the palms of the hands and soles of the feet,— this vesicular eruption was absent. The wound in the thumb was open, and discharging. The constitutional disturbance was much less than might have been expected to accompany such an extensive eruption. He was evidently a youth of great courage, and made light of his pains. His breathing was easy. There was a slight cough and sore throat. Skin hot and dry. Tongue coated on the dorsum with a thickish white fur, the edges presenting an appearance of having small

pimples upon them. Has a tolerable appetite; is not sick; no headache, and no thirst; bowels not open; urine free.

"Now, I shall not pursue this case day by day, through its progress, but I will read you the note of the day after his admission, and then I will tell you generally the progress of the case for the ensuing fortnight. We found on the following morning that he had slept but little in consequence of the discharge from the eyes, which had been constant all night. His expression was anxious. He was lying on his back, with his mouth open. Lips and teeth dry. On the internal lining of the lower lip we observed a number of these minute vesicles, and some were to be seen on the soft palate, which had the appearance of being covered with patches of slough. About his face there were numerous bullæ, especially below the chin, and these had now begun to desicate. About the upper extremities — on the inner aspect where the skin was soft — there was an appearance of these bullæ and vesicles, they were so numerous and congregated so closely together as to have become completely confluent. You could have fancied that the skin had been scalded with boiling water. About the thorax, also, the spots were more numerous, some of them containing fluid, which on the previous day they did not contain. They were more numerous about the trunk, about the axillæ and back, and in the iliac regions, the groins, the inner aspect of the thigh, and over the scrotum. Some of them were ruptured, and a copious discharge was taking place from the surfaces. The eruption was more abundant also over the lower extremities, ankle-joints, and over the footsteps. The constitutional disturbance was greater than on the previous day. He had a very restless night, having been kept awake by the discharge from the eyes, and a soreness over the surface of the body. The pulse was accelerated, (108,) small and sharp, but compressible. The dorsum of the tongue was still covered with fur. His appetite began to fail. He stated that he was very thirsty, but had no headache. The bowels were opened once in the morning, the motion being confined. Urine free. He complained of some sore throat. There was slight cough and scanty mucous expectoration.

"Such was the condition on the second day. The disease was obviously a very peculiar one, such as is not usually presented to our notice in this hospital, or, I believe, elsewhere. The moment I saw this young man I recognized a disease which had been under my notice about two years ago. In the month of March, 1854, a young man named George Richardson, about the same age as this patient, was admitted into John ward, and he presented over the surface of his body an eruption of a precisely similar character to the one I have just described. I learned, on inquiring into his

history, that he was employed as a shopman at a butcher's, and had been engaged in skinning, cutting up, and dressing sheep's-heads for sale, and that he had wounded himself. An eruption succeeded, and he came into the hospital at a more advanced stage of the disease, remaining there about a fortnight. He gradually sank, and died, worn out by the continual irritation, and the copious discharge from the surface. The body was not examined."

Dr. Burrows, after describing the details of the treatment in the first-named case, concludes his lecture by observing, that "This disorder, as I have told you, is an undescribed disorder. In its general characters it very much resembles acute pemphigus, but it differs apparently from it in the circumstance that we have vesicles mixed with bullæ. It is not either the one or the other, but the two are combined in the same case. It further seems to differ from pemphigus, inasmuch as the mucous membranes of the eye, the nostrils, the mouth, the tongue, the pharynx, all are implicated at the same time. This is the case which I have thought it worth while to bring under your notice to-day, because it gives me an opportunity of making these remarks upon the peculiar characteristics of diseases caused by the introduction of animal poisons."

DECEPTION IN HORSE-DEALING.

To illustrate my position, how almost universally has the opinion heretofore prevailed that it was not unneighborly, that it was not dishonest to tell a deliberate and ingeniously concocted lie about the properties of a horse; that it was not unmanly, dishonorable, or unfair to conceal a serious ailment or defect, and that any species of deception in a horse trade was not only legitimate and honest, but evidence of high business qualifications and exceeding smartness? So common has been this vile habit that reputable men, who desired to obtain a good name for honesty and fair dealing, who not only admired, but had a strong passion for a noble steed, have hesitated about engaging in the rearing and training of horses, lest their otherwise unblemished reputation should suffer. I am happy to be able say, in truth, that while this wide-spread evil exists to-day, to the dishonor of our country, that a higher sense of justice, of moral right and fair dealing, is every day gaining ground; and that men of unimpeached probity, and of high character, are engaged in dealing in horses as in other property, and that they are practically exemplifying in their daily transactions the truth of the old adage, that, "Honesty is the best policy," and that it is a dictate of *interest* as well as *duty*.

The habit of *lying* (for that is the proper term,) about horses, has been the parent of many a crime. For the man who, from any conceivable motive, or under any circumstances whatever, will misrepresent the truth about his horse, will soon do it about his other property. He who, by falsehood or trick, will obtain my horse, without giving me a valuable consideration therefor, will soon strive to obtain other property in a way, even more dishonest. Crime is progressive, and its insidious approaches should be carefully watched, and resisted at the very threshold. There are no compromises to be made with it. There is no safety save in entire and complete non-intercourse with it, in all its alluring phases. Every parent therefore, should impressingly teach his boy, by precept and his daily uniform example, that "all things whatsoever ye would that men should do unto you, do ye even so to them"—that he must not hesitate, at all times, and under all circumstances, as well in reference to horses as to every subject or matter, to speak not only the *truth*, but that he must speak the *whole truth*, and nothing but the truth. He should also impress upon his mind and his heart, by all conceivable means, that

"The man who *pauses in his honesty*,
Wants little of the villain."

Wisconsin Farmer.

THE HOG CHOLERA.

A FATAL malady has prevailed among hogs in the Ohio valley during the last six months. It is computed that between 60,000 and 70,000 have fallen victims to the destructive distemper within a circumference of a hundred miles surrounding Cincinnati. The disease is considered incurable, having baffled the most critical investigations into its nature, and as steadily resisted all remedial agents. The malady has been vaguely denominated "cholera," from the failure to discover its true character, and upon that principle which a few years ago prompted mankind to apply the same term to all ills which resemble "cholera" in the human body and which they did not comprehend. The distemper of which we treat, is similar in some of its operations to cholera, and in others it resembles erysipelas.

Mr. Thomas Graff, proprietor of the extensive distilleries and hog-pen apartments at Lawrenceburg, and who has lost about four thousand hogs this season by the ravages of the hog-distemper, has devoted his time patiently and indefatigably in seeking to fathom the profound and alarming mystery, but with indifferent success. His examinations, observations, and experiments, however, have satisfied him that the malady is infectious.

He at first attributed the disease to the "still-slop," with which his stock was fattened, although he entertained many doubts, from the fact that cattle fed on similar food were not affected. He, however, instituted inquiries among farmers remote from distilleries, and who fed their hogs on corn exclusively, and found the mortality equally great in their droves. He then procured four or five perfectly healthy hogs and enclosed them in a "hospital pen" where many others had died. He fed them exclusively on corn and water. In a few days they sickened and speedily died, thus proving the infectious character of the disease. He also observed that hogs belonging to farmers along the road on which the dead distempered hogs were hauled to be thrown away, were swept off by scores, thus confirming his previous test. — *Southern Planter.*

VALUE OF RACE HORSES.

The price fetched by the 200 blood yearlings which are usually brought to the hammer in England, averaged during the racing seasons of 1854–55, about $635. The average price at the royal sale of 1854, was $2,205 for 14, many of which were of the Orlando blood, which fetches a higher price than any other in England. No doubt, in all studs, great loss is sustained by a certain proportion of the young stock, which promise to be small and not worth training; but here breeders are often deceived. For example, the late Lord Grosvenor sent Meteorn, the best mare in England, of her day, to Chester Fair, when two years old, to be sold for $80, because she was considered as too small; and he also suffered Violante, the best four mile racer of her day, to be sold, untried, for $25 but purchased her again. The great prices, however, occasionally paid to breeders for some horses—$20,000, for example, to the Earl of Jersey, for Mameluke, and $17,500 for Bay Middleton—make up for the loss inseparable from such as by mishaps, diminutive size and casualties, are culled out and sold for what they will bring, which seldom amounts to much. Twenty-five thousand dollars were refused for Plenipo; and the greatest price ever given for a race-horse was $32,300 for the two-year old Hobbie Noble, in 1851. One may, however, cease to wonder at such prices, when we find that the Flying Dutchman won his owner nearly $100,000 in stakes alone; and that the winnings of himself and his half brother, Van Tromp, who belonged to the same owner, amounted to 170,000. Cotherstone won, at three years old, $63,825; West Australian, $54,875; and Surplice, $51,875.— *Southern Planter.*

ON PARTURIENT FEVER IN EWES.

"GIDDINESS ACCOMPANYING PARTURITION."

BY ISAAC SEAMAN.

(Prize Essay.)

The following admirable article on a disease in sheep which has cost many of our farmers some of their finest sheep, was commended to our attention last winter by a distinguished sheep-breeder of our State. He had practised on its suggestions and saved some valuable animals. We then made two efforts to get it in and in both cases were foiled by the printer.—*Southern Planter.*

Parturient fever in ewes ("giddiness accompanying parturition") forms a very interesting and important subject for investigation, with the true nature of which the shepherd and flock-master cannot be too well acquainted.

The term "giddiness" signifies stupor, sleepiness, delirium; and is universally applied by shepherds and flock-masters to sheep suffering from hydatids, or water in the brain. Now that we may distinguish this so-called giddiness accompanying parturition in ewes from other diseases bearing the same name, I propose to call it parturient fever; "for in calling different ailments by the same name," as observed by an eminent writer on influenza in horses, "our description of diseases becomes involved in obscurity; we never agree as to the treatment, and investigation into their character becomes more difficult than nature intended." I call it parturient fever, because fever it really is, as the appearances before and after death will show; and it does not affect the ewe at any other time than shortly before and after lambing (parturition.)

Parturient fever is an affection of common occurrence, and was attended with much fatality amongst the flocks in the counties of Cambridgeshire and Essex during the lambing season of 1852–53. It is remarkable for the suddenness of its attack, the rapidity with which it runs through its different stages, and its general mortality to those affected by it. It is so violent in its attack, and rapid in its progress, that it may prove fatal in twenty-four hours, if not arrested by the most decisive means. It affects most commonly ewes of a delicate constitution, such as the Sussex Downs; the more hardy Lincoln and Norfolk ewes are comparatively exempt from the disease. It manifests a more severe form in aged ewes and ewes bearing twin lambs.

CAUSES.—Any circumstance or agency which depresses the power of the system, insufficient or improper food, close folding, exposure

to fatigue, to cold, and moisture, may be considered causes of the affection. I have repeatedly noticed where ewes before lambing have been removed from a sufficiency of wholesome food to other possessing less nutritive qualities, they have suffered greatly from parturient fever. The practice of fattening sheep and ewes, being fed on the same piece of turnips (the best parts of which are consumed by the former, whilst the roots and other inferior parts are consumed by the latter,) ought to be abandoned; a small fold, too —a circumstance so essential to the development of fat in the one, whilst highly injurious to the pregnant ewe, to whom exercise is of the greatest importance for the maintenance of health. Moist and warm seasons, vegetables growing luxuriantly, and the non-supply of dry farinaceous food, are alike productive of the affection. Fat condition is thought to be a grand cause of the disease. I certainly have noticed the Sussex Downs (a breed most disposed to collect fat) suffer most, and, as I before stated, a delicate sheep; but losses have been sustained, from the fact that the breeder, thinking them too fat, a short time before the full period of gestation lessens the supply of food which is plentiful and nutritious, and substitutes that of a poorer nature. I well recollect the circumstances of an extensive breeder unknowingly feeding a number of pregnant ewes for the butcher, who did not discover his ignorance until after sixteen weeks' gestation: the ewes at this time were fat enough for slaughtering. Alarmed with the fear of losing them in lambing, he disposed of them to an experienced sheep-dealer; the dealer did not think there was any particular danger in lambing such ewes, and continued to feed them upon the most nutritious diet, such as linseed-cake, oats, hay, and turnips. He had not a case of parturient fever, and his losses otherwise were not more than two per cent.

Symptoms.—The most early symptom that marks the commencement of this disease: first the ewe suddenly leaves her food, twitches both hind legs and ears, and returns again to her food; during the next two or three days she eats but little, appears dull and stupid; after this time there is a degree of general weakness, loss of appetite, and giddiness, and a discharge of dark color from the vagina; whilst the flock is driven from fold to fold, the affected sheep loiters behind and staggers in her gait, the head is carried downward, and the eyelids partly closed. If parturition takes place during this stage of the disease, and the animal is kept warm and carefully nursed, recovery will frequently take place in two or three days; if, on the contrary, no relief is afforded, symptoms of a typhoid character present themselves, the animal is found in one corner of the fold, the head down and extremely uneasy, the body is frequently struck with the hind feet, a dark-colored fœtid discharge continues to flow from the vagina, and there is great pros-

tration of strength. A pair of lambs are now often expelled in a high state of putrefaction, and the ewe down, and unable to rise; the head is crouching upon the ground, and there is extreme insensibility; the skin may be punctured, and the finger placed under the eyelids without giving any evidence of pain. The animal now rapidly sinks, and dies often in three or four days from the commencement of the attack. Ewes that recover suffer afterwards for some time great weakness, and many parts of the body become denuded of wool.

TREATMENT.—The ewe immediately noticed ill should be removed from the flock to a warm fold apart from all other sheep, and be fed with oatmeal gruel, bruised oats, and cut hay, with a little linseed cake. If in two or three days the patient continues ill, is dull and weak, a dark-colored fœtid discharge from the vagina, and apparently uneasy, an attempt to move the lambs should be made. The lambs in a great majority of cases at this period are dead, and their decomposition (that is, giving off putrid matter) is a frequent cause of giddiness and stupor in the ewe. If the os uteri (the entrance into the uterus) is not sufficiently dilated to admit of the hand of the operator, the vaginal cavity and os uteri should be smeared every three hours with the extract of belladona, and medicine, as follows, given:—

Calomel,	8 grains.
Extract hyoscyamus,	1 drachm.
Oatmeal gruel,	8 ounces.

Mix, and give two table-spoonfuls twice a day.

Epsom salts,	8 ounces.
Nitre,	½ ounce.
Carbonate of soda,	2 ounces.
Water,	1 pint.

Mix and give two wine-glasses full at the same time the former mixture is given. Let both mixtures be kept in separate bottles, and well shaken before given. The bowels being operated upon, omit both former prescriptions, and give the following:—

Nitre,	½ ounce.
Carbonate of soda,	1 ounce.
Camphor,	1 drachm.
Water,	8 ounces.

A wine-glass full to be given twice a day.

Feed the ewe principally upon gruel and milk or linseed porridge. Parturition having taken place, the uterus should be injected with a solution of chloride of lime, in the proportion of a drachm to a pint of warm water, and repeated twice a day whilst any fœtid discharge from the vagina remains.—*Journal of the Royal Agricultural Society of England.*

LAMENESS IN HORSES.—SANDCRACK.

BY W. S. PERCIVAL, LONDON VETERINARIAN.

The Name of Sandcrack seems of questionable application. It is evidently a compound of the words *sand* and *crack*, as though it denoted a crack with sand in it, or a crack occurring in a sandy country, or in a dry sandy season, which several derivations have been ascribed to the term. May not the word *sand* admit of resolution into its primitive signification, and mean in this, as in other instances, a *sundered* crack.*

A Sandcrack may be defined to be, a longitudinal division in the fibres of the wall of the hoof, amounting to a flaw simply, or else to a cleft or fissure through the substance of the horn.

The direction of the crack is slanting, from above downward, and from behind forward, following the course of the fibres of the hoof. A sandcrack in the side of the wall slants more than one in front, owing to the greater obliquity of the course of the horny fibres as we proceed from the toe to the heel of the foot.

There are two kinds of sandcrack, quarter sandcrack and toe sandcrack: the former occurring in the fore, the latter in the hind foot. At least this is generally the case. It is rare to find the reverse; though there are occasions on which we meet with sandcrack in the toe of the fore foot, and the quarter of the hind foot. It is possible for cracks to occur in other parts of the hoof; but in these two situations it is that veritable sandcrack occurs, and there are here, as we shall find hereafter, special causes for their production. Let us first consider

QUARTER SANDCRACK.

The situation of this crack is the slanting line of the wall of the hoof, directly opposed to the extremity of the *ala* of the coffin bone; and it is oftener found in the inner than in the outer quarter. Added to which, the hoof in which such crack occurs is always a contracted one: quarter sandcrack, no more than toe sandcrack, never happening in a hoof disposed to obliquity and flatness. The same description of horse and foot which is predisposed to contraction is for the same reasons predisposed to sandcrack. There is an obvious connexion between contraction and quarter sandcrack. The light, near-the-ground stepping horse, with strong, narrow, upright hoofs, will be equally likely, under

*The Anglo-Saxon *Sundrian* or *Syndrian*, to sunder, presents an obvious origin for *sand*, which is sundered or separated into the smallest particles.—*Richardson's Dictionary.*

certain conditions, to have the heels of his fore hoofs becoming contracted, and exhibiting quarter sandcracks. Hot stables conduce to this; but more still hot climates Hurtrel D'Arboval informs us, that at the time the French army was in Egypt their horses were continually having sand cracks; and he adds that long voyages on board of ship are on some occasions attended with like results.

The proximate cause of quarter sandcrack is, then, *contraction.* The horn, from dryness or other cause rendered cracky and fragile, breaks at the quarter of the wall, from being at that part bent across the edge of the ala of the coffin bone, during the curving in of the heel, the result of contraction; and this oftenest happens to the inner quarter, from its being the thinner and weaker one, as well as from being the one which is the first and most disposed to contract. Not that sandcrack is the necessary consequence of contraction; but that contraction becomes a necessary precursor to sandcrack. If this were not the explanation of the case, sandcrack would be as likely to occur in any part of the wall as at the quarter, and on the outer as often as on the inner side of the wall. This likewise accounts for the comparative infrequency of quarter sandcrack at the present day among our nag and cavalry horses, since that which has tended to diminish the frequency of contraction has had the same effect in regard to the occurrence of sandcrack. Greater attention to shoeing, and increased care about the condition of the hoof itself, has no doubt had a very beneficial effect in the prevention both of contraction and sandcrack.

The origin of sandcrack is usually sudden, both in the fore and hind feet; though in the former case, from its situation in the inner quarter, a part not exposed to transient view, it is possible for a crack to exist for some time, unless lameness happens to arise from it, without being discovered. The crack first takes place through the superior or coronary border of the hoof, that being composed of new-formed horn, and consequently thin and fragile. Quickly, it extends downwards, through the thickest part of the wall, stopping as it does in some instances, at least for a time, half way down, and afterwards reaching nearly or quite to the bottom.

Sandcrack is either penetrant or non-penetrant. It is usually *penetrant;* by which we mean, the crack extends completely through the thickness of the hoof, and produces lesion of the sensitive parts underneath the horn, giving rise to some little hemorrhage in the first instance, and subsequently to more or less inflammation; occasionally, even to suppuration, depending, of course, on the extent and nature and duration of the lesion,

as well as on any treatment, or aggravation from non-treatment, it may have received since being occasioned. When the crack does not extend through the substance of the wall—which it sometimes does not at first, though it may do so afterwards—it may be said to be *non-penetrant*. And this, when it happens, seems to be referrible to a sort of natural fusion there certainly exists between the solid horn as it descends from its secreting gland, the coronet—and the horny laminæ, which become glued to it in its course downwards. It is in this uniting horny medium that *seedy toe* commences and progresses.

Lameness is the usual accompaniment of penetrant sandcrack, but not the invariable one. When penetrant, it is said to arise from the sensitive laminæ getting *pinched* between the sides of the crack. However this may be, inflammation following the lesion has certainly its share in causing tenderness or pain during action. In general, the lameness does not amount to much, nor is it of long duration, providing the sandcrack receive proper and timely attention; but if the crack is not heeded, action of the foot will much aggravate the malady, and end in lameness increased so much as to forbid further use being made of the animal.

TOE SANDCRACK.

Occurring in the hind foot—as this crack almost invariably does—occupying a different situation in the hoof, and arising altogether from a different cause, toe sandcrack may be regarded as almost a distinct affection.

The subject of it is not the light horse, but the heavy one. The cart and wagon horse, the dray horse, the latter especially, and in particular, I believe, in paved towns, such as London, are the sufferers from this disease. I say "sufferers," because it is only those veterinary surgeons whose practice lies among horses of this description, that have any conception of the amount of pain and irritation to which sandcrack, simple as it may seem to those who are in the habit of meeting with quarter sandcrack only, on occasions is found to give rise.

The cause of toe sandcrack is violence; shoeing, also, may have something to do in its production. The horses who are the subjects of it are those employed in laborious and straining draft. The toe of the hind foot is the grand fulcrum through which the hind limbs, the propellers of the body, exert their power; and it is in some violent and forcible effort that the hind hoof, strained as it is to its uttermost, and in particular at the toe, splits, commonly first at the coronet, the same as in the fore foot, where the horn, but newly formed, is thin and unresisting, the crack subsequently extending

gradually down the wall, even as far as the point of the toe. Digging the tip of the toe into the ground, or stamping it hard down upon the pavement, and especially when this stress upon the fore part of the wall is at all times promoted by high caulkings to the shoe, must certainly, one would think, be the main producer of toe sandcrack; an opinion still farther favored by the observation which has been made of shaft horses in drays being more subject to the accident than trace horses. Still, however, for all this, it behoves me to say, that with the best judges of such matters, the point is one not yet set free from doubt and difference of thinking. Short and upright pasterns, with clubby prominent hoofs, indicate a predisposition to toe sandcrack, the disease being in no instances seen in flat, shelvy, oblique hoofs. It is said sandcrack may originate in *tread*. Undoubtedly, any lesion of the coronary body sufficient to injure or destroy its secretory apparatus, may occasion imperfect or morbid formation of horn, or loss of horn altogether; but I do not believe this to be a very common cause of sandcrack.

The consequences of Sandcrack in the Hind Hoof are, as I have before hinted at, apt to be of a much more serious nature than any usually arising from a quarter sandcrack. Whether the crack extend to the bottom of the wall or not, being uniformly of the *penetrant* description, lameness to greater or less degree is the invariable result. And when the fissure does reach down to the toe, the wall opens and exposes the laminæ, probably the whole way from the coronet downward, the consequence of which is inflammation and suppuration of those parts, and sometimes even mortification and sloughing of them; and not of them alone, but of the bone to which they are attached as well, which not unfrequently runs into a state of caries, ending in defalcation of substance, to be filled up by the effusion of callus, which usually terminates in exostosis, coated with some tissue very imperfectly representing the original laminated structure.

Mr. Braby, the intelligent veterinary surgeon to Messrs. Barclay and Perkins' establishment, to whom I am indebted for much of the information I possess on this part of my subject, has had many cases of this description, one of which, of extraordinary character, I shall relate here. One of his dray horses had suffered long and severely from toe sandcrack in one hind foot, but at length had recovered, and returned to work. Some time afterwards, however, during the season of influenza, he was attacked with a violent laryngitis, which increased to a degree to call for the operation of tracheotomy, to save him from suffocation. Notwithstanding this temporary salvation, however, the patient in the end succumbed to the disease. His post-mortem examination became doubly attractive, owing to the circumstance of the long-standing and obstinate sand-

crack he had suffered from heretofore, and the result in this latter respect proved extremely interesting. The coffin-bone, along its front, occupying the line of surface between the coronal process and the toe, exhibited a channel of loss of substance half an inch in breadth, and fully the same in depth, thereby robbing it of a quarter of an inch of its solid diameter. This, of course, left the bone considerably weakened, the result of which subsequently was, transverse fracture in two places through its body: the fractures commencing upon its articulatory surface, whence they extended directly crosswise through the middle of its body, so as to become apparent upon its concave surface underneath. In addition to this, growing from the laminated interior of the wall of the hoof, opposite to the middle or deepest part of the channel in the coffin-bone, is a projection of hard, horny, callous substance, having a covering of imperfectly formed horny laminæ. At the time this horse was suffering in the greatest degree from this extraordinary product of sandcrack; indeed, constitutional irritation ran so high as even to create alarm for the animal's life.

The treatment of Sandcrack, whether it be in the quarter or in the toe, will have to be conducted upon principles applicable to both forms of the disease; though one must be regarded as of much more consequence than the other.

The treatment of a Quarter Sandcrack, generally speaking, is but comparatively a simple affair; indeed, so lightly is it looked upon by horse persons in general, that we should run some risk of their displeasure, and our own reputation as well, were we to talk about laying a horse up for so "trifling" an accident. Nay, some horses, with non-penetrant sandcracks, or with sandcracks that have been penetrant, but have become horned over, shewing little or no lameness, continue to work on without, at all events, for some time, if not for always, evincing any pain or inconvenience from them. Whether a horse be lame or not, however, should he have a sandcrack, and we be consulted about it, it becomes our duty to arrest the extension of the crack so long as it be but partial; and besides that, to take measures for the "cure," or permanent removal of such crack. The owner of the horse should be given to understand, that no flaw or crack in the hoof can by possibility unite the same as a wound in a vital part does; but must, as the saying is, "grow down," i. e., must be replaced by new horn, and be itself by degrees removed, as it continues to come under the operation of the drawing knife every time the horse is fresh shod. So that, in point of fact, the "cure," or obliteration of sandcrack is necessarily a work of some months; though the removal of the lameness consequent on it may possibly be accomplished in as many hours or days.

Paring out the crack, the shoe being taken off the foot, is the first thing to be done. The cutting cautiously away of its rugged edges, and the scooping out with a light hand—probably with the back of the drawing knife—of its cavity, will enable us to examine into the condition of it. Should there be no lesion or exposure of the laminæ detectible, nothing further will be needed from the drawing knife than the cleaning out of the crack.

Firing the crack is the next operation. Cross-firing will be advisable below or above, or in both situations, according to circumstances. So long as the crack has not reached to the bottom of the wall, it will be requisite, with an ordinary firing iron at a red heat, to burn a deep but short fissure, or "mark," across its lower extremity; and whether a similar operation be required across the superior termination of the crack must depend upon its extension or not through the horn at the coronet. If there be any interval of sound horn between the hair and the crack of sufficient breadth and substance to bear firing, a very slight burn may do good. In all cases it is the practice to finish the firing with running the sharp edge of the iron down the crack; and this certainly proves beneficial in destroying any tendency there may be—supposing the laminæ to have become denuded—to abnormal action, as well to stimulate any vascular parts exposed to issue horny matter to cover in the bottom of the crack.

Binding up the crack is a good practice after firing. With a wax end of sufficient length—such as shoe-makers use—bind round the wall of the hoof, so that any tar or pitch plaster it may be deemed advisable to place in or upon the crack may be maintained there; at the same time that the hoof itself is, by the tight binding, restricted in any tendency it may have to expand, and thereby open wider the crack.

A Bar-Shoe is the preferable one for a sand-cracked foot. By it, the bearing being taken off that part of the wall which is opposite to the crack, the pressure and jar, so continually splitting afresh the new-formed horn over the crack at the coronet is put a stop to; the formation of an undivided coronary horny band being the commencement of the radical cure of the sandcrack. As I said before, horn being an inorganic substance, no union whatever can take place in the crack itself: permanent cure can be effected only through obliteration by the growing out or down of the crack. This, I repeat, is the reason why a sandcrack occupies so long a time in its removal; though, by way of compensation, a horse is not kept out of work while cure is being effected; for, after the crack has been bound up, and the hoof shod with a bar-shoe, it is quite surprising to find how soundly and firmly the animal sometimes steps upon the foot of which he had but now been so lame.

The treatment adopted by the late Mr. Read, V. S. of Crediton, carries the same object into execution through a different method of proceedure. This, as detailed in the volume of *The Veterinarian* for 1848, consists in simply isolating the fissure within the segment of a circle, by means of an ordinary firing-iron. The best plan is to operate with the heel of the iron, beginning at the coronet with either extremity of the segment, and bringing the iron to a finish at the centre. The iron should be at a strong red heat, and be carried through the horny crust until it touches, lightly, the sensible laminæ, and so throughout the entire semi-circle. As you recede from the coronet, so in proportion you will require to deepen the fissure in the crust. The iron ought to be applied every week or ten days. The first effect desirable to be produced is a bulging of the crust around the coronet within the segment, and when once this is fairly established, the cure may be said to be effected, it being seldom necessary to apply the cautery afterwards. The old method of making a line with the iron across the fissure cannot prevent the opening and closure of the fissure during the action of the foot; whereas, isolating the fissure (or part of it) within the segment of a circle, completely effects the object. No tar-cord, or strapping, or alteration of the shoe is required to limit the motion of the crust, all motion being suspended within the segment, and especially after bulging has commenced.

The objects of treatment, after what has been stated, will clearly appear to be—first, to place the hoof in such a condition as shall not render it liable to crack afresh; secondly, to remove that state of it which, in the first instance, disposed it to crack, if it were not of itself the immediate cause of the cracking. The way in which the first object is to be effected has been already shown; and when this has become accomplished, past all risk of return, we may set about to bring into effect the second. A bar-shoe, from its taking the bearing off the quarters and placing it upon the frog, will in a measure give facility to what we now are desirous of promoting, viz., the expansion of the heels of the foot; but a tip—providing it can be worn, which it frequently may with great advantage after a bar-shoe—will bring about greater reform still; will, in fact, by persistence in its use, bring about in time that improved form of hoof which will be no more liable to quarter sandcrack.

The treatment of Toe Sandcrack is in some respects a different affair from that of quarter sandcrack. This disease is not only different in its relative situation as regards other parts of the foot, but it arises, as we have seen, from a totally different causation. When once it has occurred, it becomes, compared with the other, a serious affair. The horse is lame—too lame to continue his work, probably; and we have a penetrant crack to deal with, extending all, or

nearly all the way from the coronet to the toe; discharging blood, or perhaps matter of some ichorous offensive description, plainly calling upon us for, not binding up, &c., as in the former case, but for

Opening, and cleansing and dressing. The shoe being taken off, let the crack be pared out and freed from all horny rags and asperities, and laid completely open to view, so that the bottom can be inspected and dressed with whatever may be deemed requisite. In fact, when once the fissure is dilated into a clean and open channel by the drawing knife, warm baths or poultices, or dressings of any kind, as may become necessary, are now applicable; the case being in this stage no more than one of dilated sinus in the foot, similar to what might in another situation be called *quittor.* As with the quarter sandcrack, the cure will, of course, be tedious in its duration, since we know that all complete repair can come only from the coronet. The sensitive laminæ having the power of secreting horny laminæ, may, as in the quarter crack, issue a sort of horny covering-in of the bottom of the fissure; but fissure or cleft will ever remain so long as an integral formation of horn does not grow down from the source of secretion.

Whenever the horse is in a condition for work, a bar-shoe, so made that at the toe the sides of the shoe remain unjoined together, an interval being left of sufficient width to receive the crack in front of the hoof, is perhaps the best. Binding the hoof up with circles of wax-end, as in the case of quarter sandcrack, with some plaster or dressing underneath it, will also now become advisable. It will restrict the spreading inclination of the hoof, as well as keep dirt and wet out of the crack. Repetition of this, and the continuance of the bar-shoe, will be required so long as there appears any risk of an extension or renewal of the crack.

Farinaceous Aliment from Straw.—The attention of agriculturists in France has recently been directed to the discovery of a method of converting straw into a kind of bran. This discovery has been claimed by two individuals. The first is a miller, near Dijon, who, it is said, on trying the mill-stone of a new mill, discovered the possibility of converting straw into a nourishing food. The second, M. Jose Maitre, of Vilotte, near Chatillon.

This sort of aliment is very excellent when combined with a sufficient amount of nutrimental matter, for animals whose systems lack the requisite amount of phosphates and phosphoric acids. A milch cow, for example, whose lacteal vessels yield in the form of milk the above equivalents, may be benefitted by an occasional feed of straw meal.

CASE OF GENERAL CONGESTION.

BY PROF. ROBERT WOOD, OF THE BOSTON VETERINARY INSTITUTE.

January 30th, 6 P. M., I was called to attend a bay mare, about ten years of age, of medium size. The owner informed me "he had driven her from Chelmsford, four miles from this city: that when about half way, he observed her to falter and appear unwell, he thereupon pulled up, and after waiting a few minutes, she appearing somewhat relieved, he again proceeded, but with great difficulty reached Lowell. That on getting to a stable as soon as she was unharnessed, she commenced to cough, and lose the use of the the hind extremities, and gradually got down to the floor." On my arrival I found my patient stretched at full length on the stable floor, her pulse not perceptible at the angle of the jaw, respiration eight and not more than half full, extremities cold and apparently powerless,—wherever I placed them they would remain. My first impression was, that the mare was dying from internal hemorrhage. But upon further examination, I found the membranes in a highly congested state, the conjunctiva resembling velvet, and not a blood vessel visible. I diagnosed the case as one of acute general congestion, and gave a drench composed of—

Tr. aromaticus comp.
Spt. Nit. Æth. aa., - ℥ii,
Aromatic Spt. Ammonia, ℥i, aqua, quantum suff.
Croton Farina, - - ʒi.

Had her well covered with blankets, and to have the extremities thoroughly rubbed.

At 7 1-2 o'clock again visited the patient, and found her more comfortable; the stimulant operating favorably; surface and extremities getting warm, respiration increasing and more full; on approaching her head she moved it a little, licked her lips, &c.; pulse 46, tolerably distinct. I now gave her a warm injection, applied a strong stimulant the whole length of the spine, and continued friction to the extremities.

10 P. M. On entering the stable I found my patient standing up, to the surprise of all present. She had evacuated the bowels, and voided her urine freely, her skin moist with perspiration, pulse 48, respiration 20 and full. The muscles of the loins and rump being somewhat rigid and swollen, I applied a blanket several times doubled, rung out of water as hot as I could bear my hand in it, covering it well with several others, and ordered it repeated again. In six hours, gave a ball composed of aloes barb, ʒiij, verat alb. ʒss., and allowed water, *ad libitum*.

Jan. 31, 7 A. M. The mare is doing nicely, pulse 48; respiration 18; extremities warm; has voided both fæces and urine during the night, drank freely, but does not eat; the stimulant having acted slightly on the buccal membrane, rendering it very sensitive; muscles of the loins relaxed, and the swelling subsiding. Gave 20 drops of tincture of aconite, continue fomentation to the loins, and to be walked quietly around in the stable several times during the day.

Feb. 1, 9 A. M. My patient is now quite convalescent, bowels responding slightly to the cathartic; appetite returning; dismiss the case, simply advising good care for a few days.

Feb. 9. I have just seen Mr. Hill, the owner, who informs me the mare has fully recovered, and seems as well as ever.

Lowell, Mass.

[Written for the Veterinary Journal.]

WOODBURN STUD FARM, (WOODFORD COUNTY, KY.)

MR. THOMPSON :—I refreshed myself this evening by a visit to the above-named farm, and a sight of the two renowned stallions, *Lexington* and *Scythian*. Lexington is a beautiful bay, fifteen and a half hands high, with fine head, thin and open nostril, a beautiful and pointed ear, well set on, a long and wiry neck, rising from an oblique and muscular shoulder; deep through the girth, good loin and middle piece, broad, full quarters, and superior limbs. In all, he is a beautiful horse, of fine blood-like appearance, remarkable for the universal perfection of his parts; but more remarkable for having made the best four mile race on record, either in England or America. He is a Kentucky bred horse, having been foaled within a few miles of where he now stands.

Scythian is an English horse, having been recently imported by his enterprising owner, Mr. R. Aitchison Alexander, of Woodford County, Ky. He is a dark bay, of good size and form, descended from as illustrious an ancestry as any horse in the world, without a drop of ignoble blood flowing through his veins. His character as a racer is unsurpassed by any horse of his age; having won many of the most important races in England, to wit: the "Goodwood Stakes," "Chester Cup," "the Tradesman's Stakes," and many others, amounting in all to about $35,000. B. M.

These two "*distingues*" are now under the superintendence of Mr. Joe Clinton, who is a Trump among horsemen, and the prince of good fellows. B. Monroe is a "prince" of the same craft.—*Ed.*

CLINCHING HORSE SHOE NAILS.

As I once passed through this town, one of my horses' shoes became loose, and I went to the shop of a smith named Lovelace, to get it fastened. The shoe was nearly new, and had become loose in consequence of the nails having drawn out of the hoof, although they had been clinched in the manner universally practiced. The smith remarked that all the other shoes were loose, and would soon drop off, when I requested him to take them off and replace them; and then did I perceive the different mode which he adopted for fixing them, which I will here detail. As fast as he drove the nails, he merely bent the points down to the hoof, without, as is customary, twisting them with the pincers; these he then *drove home*, clinching them against a heavy pair of pincers, which were not made very sharp; and after this had been very carefully done, he twisted off each nail as close as possible to the hoof; the pincers being dull, the nail would hold, so as to get a perfect *twist round* before it separated. These twists were then beaten close to the hoof and filed smooth, but not deep, or with the view to rasp off the twist of the nail. "Oh ho!" said I, "I have learned a lesson in horse-shoeing." "Yes," said he, and a valuable one; if I were ever to lose a single shoe in a long day's hunt, I should have to shut up my shop; my business is to shoe the horses belonging to the hunt, and the loss of a shoe would be the probable ruin of a horse, worth perhaps a thousand pounds; but I never am fearful of such an accident." "Simply because you drive home and clinch the nails before you twist them off," said I. "Yes," replied he, "by which I secure a *rivet* as well as a *clinch*." The thing was as clear as the light of day, and I have several times endeavored to make our shoeing smiths understand it, but they cannot see the advantage it would be to *themselves*, and guess, therefore, *it would never do in these parts;* but if my brother farmers cannot see how it works with half an eye, and have not the resolution to get it put in practice, they ought to see the shoes drop from the feet of their horses daily, as I once was accustomed to do. Now, let any one take up an old horse shoe at any of the smith's shops on the road, and examine the clinch of the nails which have drawn out of the hoof, and he will soon perceive how the thing operates. In short, if the nails are driven home before twisting off, and the *rivet* formed by the *twist*, be not afterwards removed by the rasp, I should be glad to be told how the shoe is to come off at all, unless by first cutting out the twist?—*Farmers' Cabinet.*

THE REMAINS OF BLACK HAWK.

David Hill, Esq., of Bridgport, Vermont, has generously donated the osseous remains of this once highly prized horse to the Veterinary College of Boston, and they are now in possession of the Faculty, undergoing the necessary preparation, and ere long we shall give the public an opportunity of viewing the skeleton of an animal whose fame is equal to that of the most distinguished of the equine stud of America.

Most of our readers are probably aware that Black Hawk was sired by Sherman Morgan. His dam was a three-quarters-blood mare, obtained from the Provinces. He was remarkably intelligent, (an attribute of the horse which some persons question,) and was never known to exhibit the least combativeness, but was in the stable, rather docile for a stud horse; yet a snap from Mr. Hill's fingers would arouse the latent fire of his disposition; then he was all action, all horse, yet graceful and tractable.

On Thursday, February 12th, we arrived at the residence of Mr. Hill. Next day, the remains of the animal were disinterred from their resting place. We observed that he had been decently interred, about six feet below the surface of the earth; his body resting on some clean straw. His shroud was composed of blankets, and over all was placed a large door. He had been in the ground for a period of 74 days, having died on the first day of December, 1856; yet owing to the coldness of the season, his body was in a better state of preservation than might otherwise have been expected. Hence, we had an opportunity of forming some idea of his condition at the time of death, and the cause of the same, which we shall refer to in a subsequent number of this Journal.

It was our intention to divest the bones of their muscles and tendons, and in this state bring them to Boston; but on a few hours' exposure to the atmosphere, they became very offensive, consequently it was thought best to cleanse and prepare them. In performing this task, Mr. Hill and his son Charles rendered us every assistance in their power, and to them we are under great obligations. Want of space prevents us extending these remarks, and we shall therefore postpone the subject for our next issue.

The old horse "Charley," who was owned for many years at what is now called the Massasoit House, Barre, was killed by his owner, having become so old and weak as to be unable to get upon his feet. He was raised in Vermont, and his age was forty-three years eight months and seventeen days.

"QUERY FOR SUBSCRIBERS, OR DR. DADD."

It is known among medical men that *secale cornutum*, or blasted rye, has the effect of procuring contraction of the uterus, and consequently the expulsion of its contents, or abortion. Consequently a popular notion prevails, that it is unsafe to pasture breeding mares in the summer on growing rye, or to feed them on the rye meal while in foal. Will some farmer who has tried either, be good enough to give the world the benefit of his experience? I don't believe that either of the above modes of using the rye would produce abortion in breeding mares: yet I confess that I have not the nerve to try them. I believe that this specific influence on the uterus is possessed alone by the *blasted* seed or grain. B. M.

Perhaps Professor C. M. Wood will favor our correspondent by answering the above query.

MILK AS A MANUFACTURING INGREDIENT.

Milk now performs other offices besides the production of butter and cheese, and the flavoring of tea. It has made its way into the textile factories, and has become a valuable adjunct in the hands of the calico printer and the woolen manufacturer. In the class of pigment printing work, which is indeed a species of printing, the colors are laid on the face of the goods in an insoluble condition, so as to give a full, brilliant appearance. As a vehicle for effecting this process of decoration, the insoluble albumen obtained from eggs was always used, until Mr. Pattison, of Glasgow, Scotland, found a more economical substitute in milk. For this purpose buttermilk is now bought up in large quantities from the farmers, and the desired indissoluble matter is obtained from it at a price far below that of egg albumen. This matter the patentee has called "lactarin." A second application of the same—milk—has just been developed, by causes arising out of the recent high price of olive oil, which having risen from $200 to $340 a ton, the woolen manufactories are now using the high-priced article, mixed with milk. This compound is said to answer much better than oil alone, the animal fat contained in the globules of the milk apparently furnishing an element of more powerful effect upon the fibres than the pure vegetable oil *per se*.—*The Cincinnatus.*

EGYPTIAN, OR MUMMY CORN.

Perhaps the most wonderful and interesting specimen of the earth in the Horticultural Exhibition recently closed, was some *Egyptian Corn*, raised in the garden of Gen. Wm. H. Sumner, of Jamaica Plains, and kindly sent by him for exhibition, thus giving thousands an opportunity of seeing one of the greatest curiosities within our knowledge. The seed from which this corn was raised, was taken from the *folds of cloth wrapped around a mummy three or four thousand years ago*, and wonderful as it may seem, after being entombed for so many centuries, like a resurrection from the dead, it springs up in new life and vigor. It is undoubtedly the kind of grain for which Joseph's brethren went into the land of Egypt—the same "corn" of which the Bible speaks. It is luxuriant in its growth, and the heads resemble wheat, but are very much larger, forming in inverted conical clusters as large as the closed hand; the kernels are large, and very sweet to the taste, and the stock and leaves are similar to our Indian Corn. There seems to be no reason why it may not become a valuable addition to our cereal productions, and thanks are due to the gentlemen who are multiplying it, and bringing it into notice.—*N. Y. Evening Post.*

DEATH OF BLACK WARRIOR, THE WAR HORSE.

This remarkable war horse died in this city last week, at the advanced age of twenty-eight years. He was raised in Tennessee, and branded U. S. D. (United States Dragoons) on the opening of the war in Florida, where he served in the swamps and everglades to the close of that inglorious campaign; after which, for several years, he was used in the chase of wild Indians, horse thieves, border ruffians, and at odd spells, of foxes, deer and buffalo, at the various military posts on the prairies west of Arkansas. Having marched all over the country, and swam all the principal rivers between St. Augustine, Fa., and Mexico, he was in the whole of the Mexican war, and took an active part in nine general battles, having been wounded by a musket ball at Molinos del Rey, and again by a piece of shell at Chepultepec. Peace being restored, Major Morrill was unwilling to part with his faithful companion in arms, who had borne him successfully through two wars, from the grade of Second Leiutenant to Brevet Major, or to break him down with more service; and so he brought him north, and placed him on a

"retired list" for life, in this city, with full rations, where he has been cared for at the stables of Disbrow, the equestrian Professor. He was ridden by Kossuth, and also by President Pierce, on occasion of their triumphal entries into the city of New York, a few years since, and was usually ridden by General Sandford, on the Fourth of July, and often by Col. Duryea, at the head of his famous Seventh Regiment. He was never in harness, but was unequalled for discipline and grace of movement under the saddle; very fond of music, knowing his place, and the word of command, and the bugle call, quite like an old soldier; was never sick or lame for a day, or known to fall or stumble; and was remarkable for his great powers of endurance, keeping fat on prairie grass on long marches; a fine blooded animal, of medium height and weight, perfectly symmetrical and beautiful in form, clean limbed, smal head well formed, bright, quick, handsome eyes, large thin nostrils, red as fire when distended; very spirited, yet kind and gentle, and very knowing, and possessing a greater number of good points than any other of his cotemporaries in the long line of his service, all of whom, perhaps, he outlived. Black Warrior may well be classed along with Bucephalus, Copenhagen, Old Whitey, and other celebrated chargers that have "said among the trumpets, Ha, ha, and smelt the battle afar off, the thunder of the captains, and the shouting."—*N. Y. Herald.*

A BAD HABIT.—It has been said, to "*break* a horse of the habit of *breaking* his halter, you must *break* his neck;" and some person, desirous of saving time by performing the three feats at once, has recommended that the horse be tied on the bank of a stream, in such a position that when he breaks his halter he may turn a somerset into the water. But, on the contrary, a horse can be broken of the trick, and that without endangering his life or limbs. The remedy is simply to tie the horse, with a good stout halter, to the end of a stout limb of a tree near the ground. A horse does not break his halter by a steady pull, but by jerking at it; and as the limb will spring whenever he jerks, it will prevent his snapping it. Tie the horse in various places, (to limbs,) because if he is kept tied in one place he soon gives up pulling at the halter there, but when tied to a post he soon resumes his old tricks.—*True Flag.*

The best way to break the animal of the above habit, is not to halter him, but let him remain loose in the stall, merely tying a rope across the entrance of the stall.

MISCELLANEOUS.

MEDICAL ASSOCIATIONS.—We have a petition now before the Legislature of Massachusetts, the object of which is to obtain an "Act" to incorporate the "Boston Veterinary Association," and as there are no rival associations of the kind in this State to oppose us, the Legislature will probably hearken unto the petitioners and grant their request. The object of an association of this character is so ably presented by Prof. C. M. Wood, in our January No., page 17, that we have nothing more to offer on the subject. Since writing the above we learn that the petition has been granted.

THE FROG TEST FOR STRYCHNIÆ.—Dr. Marshall Hall has been engaged in making a series of experiments with young frogs in order to prove their susceptibility to the influence of strychniæ: by this means he has been enabled to detect the presence of 1.2500 part of a grain of the acetate of strychniæ.

CASE OF TOOTHACHE IN THE HORSE.—A rather unusual case occurred within the last week in the practice of Mr. Ferguson, Her Majesty's veterinary surgeon in Ireland. A horse, belonging to a person named Walker, living in Brunswick street, had been condemned as glandered, and ordered to be destroyed, his owner having been prosecuted for allowing him on a public thoroughfare. The animal was wasted in condition, and had a profuse discharge from one nostril, similar to that of glanders. On making some inquiries relative to the history of the case, Mr. Ferguson ascertained that the animal occasionally could scarcely masticate his food. This induced him to examine the horses's mouth, with a view to ascertaining the state of his teeth. Seeing one of the upper back teeth (he last but one) discolored, he determined on extracting it, fancying that it was affected with caries, and that an abscess had formed at its root and burst into the nose, thus giving rise to the fetid discharge from the nostril of that side. On drawing the tooth, which was accomplished by a leviathan instrument exactly resembling the key tooth extractor for the human subject, Mr. Ferguson's surmises were found to be correct. There was not alone decided caries of the tooth, but also a large chronic abscess at the extremity of its socket, the contents of which had forced a passage for themselves through the bones into the passage of the nose, profusely furnishing the nostril with a most offensive discharge, which had been mistaken for that of glanders, and well nigh was the cause of sealing the animal's fate. Since the extraction of the tooth the discharge has ceased, and the horse masticates his food properly, and has evidently improved in health, strength, condition, and spirits, being now able to do ordinary work. Thus dental surgery is occasionally as requisite for the horse as for his master.—*English Paper.*

CORRECT TIME.—An order has been issued by Mayor Wood to the bell-ringers at the different fire-alarms, to strike the hour of nine every evening upon receiving a signal by telegraph. The instant is determined by transit observations. This will be a great convenience to all citizens, furnishing them at once and without cost with the means for regulating their time-pieces.—*Life Illustrated.*

We should like to hear of an order, issued by Mayor Rice, of this City, to *our* bell ringers; for the clocks in this vicinity are like some of the doctors, they never agree.

LIBERAL DONATION.—F. A. Michaux, the distinguished botanist (now deceased) has given eight thousand dollars to the Massachusetts Agricultural Society.

EFFECTS OF A SQUALL.—A Schenectady editor, describing the effects of a squall on a canal boat, says: "When the gale was at its highest, the unfortunate craft keeled to the larboard, and the captain and another cask of brandy rolled overboard and were both lost."

AGRICULTURAL EDUCATION IN OHIO.—The Ohio Agricultural College, located in Cleveland, commenced its second session on the first Monday in December. The

plan of instruction consists in courses of Lectures, four daily, which are given at the regular annual session held during the winter months, continuing for twelve consecutive weeks—a season of the year when the farmer himself, or his sons can best spare time to attend. The Lecturers are Prof. J. P. Kirkland, Prof. Jas Dascomb, Prof. Samuel St. John, Prof. J. H. Fairchild, Prof. N. S. Townshend, and others. The terms for the entire course, $40, with the privilege of a second course, tuition free.

POWER OF ENDURING COLD.—The mysterious compensations by which we adapt ourselves to the climate, are more striking here than in the tropics. In the Polar Zone the assault is immediate and sudden, and, unlike the insidious fatality of hot countries, produces its result rapidly. It requires hardly a single winter to tell who are to be heat-making and acclimatized men. Peterson, for instance, who has resided for two years at Uppernavich, seldom enters a room with a fire. Another of our party. George Riley, with a vigorous constitution, established habits of free exposure, and active, cheerful temperament, has so enured himself to the cold, that he sleeps on our sledge, journeys without a blanket or any other covering than his walking suit, while the outside temperature is 30 degrees below zero.—*Dr. Kane's Journal.*

NATIONAL AGRICULTTRAL SOCIETY —WASHINGTON, Jan 15.—M. P. Wilder has been elected President of the United States Agricultural Society. The next exhibition will be at Louisville. A resolution was adopted, looking to the purchase of Mount Vernon for a National Agricultural Institution.

VENTILATING HAY STACKS.—The British farmers have a method of ventilating their hay, oat and barley stacks which we may frequently adopt with advantage; and in stacking corn-stalks it would be always beneficial. They fill a large bag, say 3 1-2 feet high and 20 inches in diameter, with straw, and place it vertically in the centre of the stack, putting the barley, oats or hay, whichever it may happen to be, around it. As the stack rises they lift the sack; and so on to the top. In this way there is a chimney formed in the centre of the rick or bay, into which the steam or gases generated find their way and escape readily.—*Wool Grower and Stock Register.*

A NOBLE GIFT.—At the Farmers' Assembly, Gen. P. S. Cocke, on retiring from the office of President of the Agricultural Society, which he has so ably filled, gave to the Society his check for twenty thousand dollars, as a contribution to a fund for maintaining an Agricultural School in connection with the University of Virginia.—*Richmond Dispatch, Nov.* 1.

☞ ACCORDING to the Patent Office Report, the value of our horses is $300,000,000, or three-fourths as much as that of all the horned cattle in the United States; and hence, argues Mr. Wilder, the full and fair exhibition of their good points as well for speed and action as for strength and beauty, is called for at our Fairs.

CIRCULATION OF THE BLOOD.—Messrs. Willard, Moses, and Dr. Cartwright, have found an ally in Dr. Waller, who reiterates his notion, announced some time ago, that the movement of the blood is due to the action of the pulmonary cells, and not to that of the heart, his opinion being strengthened by further enquiry.—*N. H. Jour. of Med.*

AMERICAN VETERINARY JOURNAL.—This periodical is issued regularly every month, and is rapidly forming public opinion in reference to Veterinary Science. What is the reason that the Yankee, so quick to see the value of, and practice all other useful arts and sciences, cannot or will not appreciate that which preserves the noble horse, and all his congeners, the domestic animals? Shame to American good sense to forget and neglect this most valuable science. Are there no young men among the thousands now attending our medical colleges, willing to take this matter up and make a fortune by it.—*Philadelphia Medical and Surgical Journal.*

EDITOR'S DRAWER.

COLLEGE JOURNAL OF MEDICAL SCIENCE.—We perceive that the proprietors of the "College Journal of Medical Science," published at Cincinnati, have purchased the "Worcester Medical Journal," and it is now combined with the College Journal and enlarged by the addition of sixteen more pages. This Journal is ably conducted by the Faculty of the Eclectic College of Medicine. Our old friend, Prof. Cleveland, contributes some good articles every month. The publishers have done wisely in not increasing the subscription list with the addition of more *matter*. The price is one dollar per annum, in advance.

We have received a copy of "Humphrey's Journal of the Daguerreotype and Photographic Arts and the Sciences and Arts pertaining to Heliography." Published semi-monthly by S. D. Humhrey, No. 37 Lispenard street, New York, and by Kerbuet & Co., No 12 Paternoster Row, London. Pric Two Dollars per annum in advance. This a work of great value to those interested in the above sciences.

AMERICAN MEDICAL JOURNAL.—We are in possession of Nos. four and five of the "American Medical Journal," conducted by the Faculty of the American Medical College of Cincinnati, Ohio. Terms, one dollar per annum. This is the first year of this seriel, yet it appears to be conducted in a manner highly creditable to its Editors, and we hope they may receive a fair share of patronage.

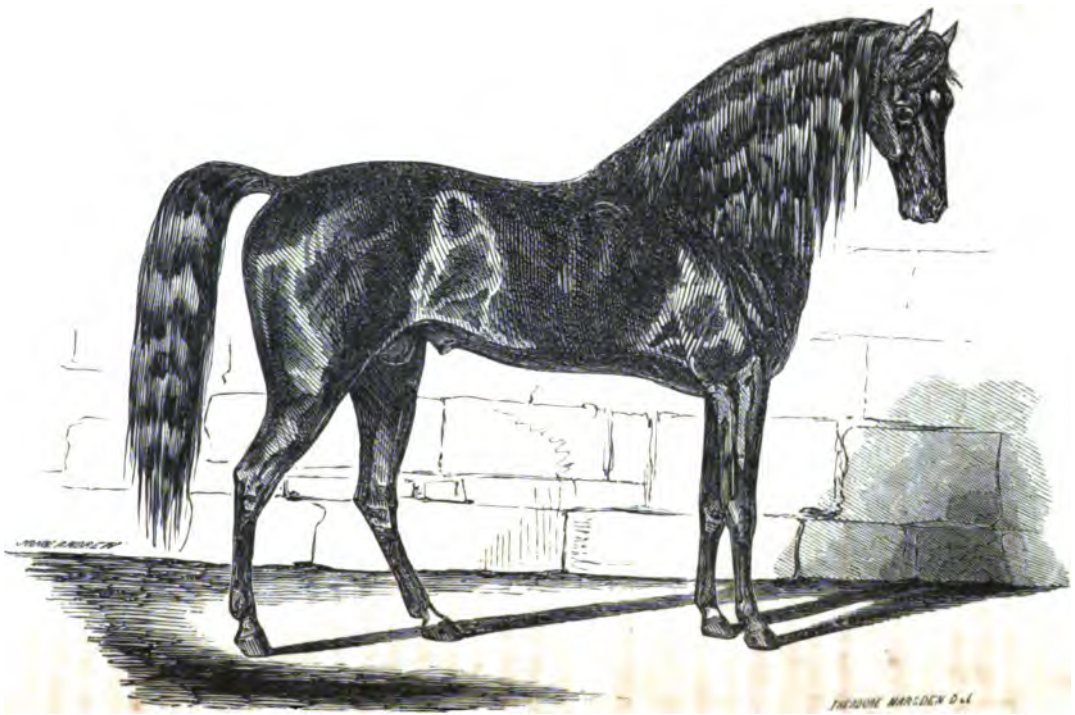
We have received a specimen copy of the "Little Pilgrim," edited by Grace Greenwood, and published by L. K. Lippincotte, 66 South Third street, Philadelphia. This is an excellent sheet for youth. Its lessons are pure, healthful, and interesting. Terms, 50 cents a year.

"MOORE'S RURAL NEW YORKER."—Conducted by D. D. T. Moore, with an able corps of assistant editors." Published weekly at Rochester, N. Y., at $2 per annum. We are under obligations to Mr. Moore, for the back numbers of the eighth volume of the "Rural New Yorker." We understand that this valuable and sprightly weekly has a circulation of nearly fifty thousand, which is a better argument in its favor than anything we have to offer.

We have received the two first numbers of the "Vermont Stock Journal," a monthly periodical, published by D. C. Linsley, Middlebury, Vermont. Price fifty cents per annum.

Mr. Linsley is favorably known as the author of a popular work on the favorite horses of this region; his new enterprise in the publication of this Journal will probably create for him a host of friends and secure a large subscription list; that such may be the case is our earnest wish.

GIVE CREDIT.—Will Friend Ruffin, of "*The Southern Planter*," please credit this Journal with two articles that appear in the Jan. No., entitled "Random Thoughts on the Feet of Horses," and "Big Head," (osseous disease of the horse)? Both articles were written for this Journal; they now appear as Editorials in "The Southern Planter." It may not make a *diff of bitterance* who was the author of them, or in what Journal they originated, and we only cail the attention of our Southern friend to the matter, that he may be led to keep an eye on the compositor's delinquency, for the editor, from our own personal knowledge is too much of a gentleman to disregard the courtesies of the craft. The Editor of this Journal, however, is by no means a *saint* in this matter, the compositors sometimes fail to "*give credit*," and the Editor, when *scissoring* fails to *mark* the paragraph, so that it appears as *original*. Yet if we have wronged any in this way, they have only to notify us and we will own up.



TROTTING CHILDERS.

THE PROPERTY OF LAMBERT MAYNARD, ESQ., OF BOSTON, MASS.

THE AMERICAN

Veterinary Journal.

DEVOTED TO THE DIFFUSION OF VETERINARY KNOWLEDGE.

Edited by GEORGE H. DADD, Veterinary Surgeon.

Published by S. N. THOMPSON & Co., 97 Union Street.

PRICE, ONE DOLLAR PER ANNUM.

VOL. II. BOSTON, MASS., APRIL, 1857. NO. 4.

DEATH OF BLACK HAWK.

In our last we promised to offer a few remarks in regard to the condition of "Black Hawk" at the time of death, and the cause of the latter. It must be borne in mind, however, that the animal had been buried during a period of seventy-four days, consequently the appearances of the body, and parts of the same, at this subsequent period, must not be taken as conclusive evidences of the actual pathological condition at the time of death, but allowances must be made for the same.

The body, as the reader is informed in our last number, was in a remarkable state of preservation; the panniculus carnosus and subcellular tissues were almost entire, having undergone but slight decomposition. The odor from the carcass was not very offensive, but became so after a short exposure to the atmosphere.

On opening the abdominal cavity the first thing that attracted our attention was the immense amount of fat contained in the omental and other tissues, indicating that the animal was, while alive, in a state of adipose plethora. The whole contents of the abdomen were free from all signs of disease; the kidneys were embedded in a dense mass of fat, and the only change observable in them was, that they were softened. There was no lesion of the urinary apparatus yet it had undergone the same discoloration that was noticed in other parts. The same remarks apply to the liver, spleen and pancreas; they were not decomposed,

but merely softened and discolored. The large intestines were occupied by an immense quantity of shorts and masticated hay, which appeared almost as fresh as on the day it was taken into the stomach. The stomach showed no traces of disease; its cuticular region presented the usual blanched aspect, and the villous, was of a light red tint and glossy. The diaphragm appeared more decomposed than any other part of the body; it was gangrenous and hung in shreds by its tendinous attachments to the walls of the thorax. On examining the contents of the thorax we found the heart to be of large dimensions, yet no appearance of local hypertrophy; the right ventricle,* which is the receptacle for venous blood, was empty, yet its interior surface was studded all over with an infinite number of deposits about the size of a millet seed, white as phosphate of lime, and very much resembling that substance; these were readily scraped off with the finger-nail. The presence of these deposits might not be the result of disease, for we have noticed in the human body only a few days after death, on the pleura and peritoneum, a roughness, which, on passing the fingers over, felt like small particles of sand. The carnæ columnæ of this ventricle were unusually prominent, and the cordæ tendenæ were all entire.

The surface of the left ventricle differed very materially from that of the right; it had a dark velvet appearance, and was coated with a thick, tenaceous deposit of blood, showing conclusively that it had been the seat of intense inflammation, — a disease sometimes termed endocarditis. The lungs were much blackened, and probably at the time of death were in a state of congestion, as there was but little blood in any other part of the body, and the impression we had at the time, was that the animal had been largely depleted. This however might not have been the case, for the veins and arteries of the neck having been severed shortly after death, in removing the head, the body may thus have been drained of blood. There was no appearance of the least alteration in the structure of the lungs, and from the fact, as we are informed by Mr. Hill, that the horse was down on the floor many times just previous to death, we infer that there was no disease of the organs of respiration, for horses seldom lie down when the lungs are the seat of any grave disease, until a few minutes before they expire.

The synovial membranes of the joints of the fore extremities were all of a deep red color, showing that they had been the seat of intense inflammation. This will account for the violent character of the pain the animal was noticed to suffer under, prior to death. The above appearance of the joints of the *fore* extremities was not observable in those of the *hind*.

*The ventricles are known to anatomists, as anterior and posterior.

From the information we have gleaned, and from our own observations while dissecting the subject of these remarks, we agree with Dr. Gale, who was called upon to give advice in regard to the case, that the disease was of rheumatic origin. There is abundant evidence that the animal was predisposed to this affection; one fact alone will sustain this theory, viz: that he had a prior attack of the same.

Mr. Hill's account of the last sickness of Black Hawk is as follows: — On the 28th of November, 1856, I went to the stable and observed that the horse was sick; he appeared to be in great pain, and pointed his fore legs, like a foundered horse. I abstracted about half a pail-full of blood, and gave one pint of linseed oil; shortly after I bled him again (quantity not stated;) he then got down, and on rising, sweat profusely. Next morning I found him standing, but he could not advance the body only by throwing the weight of the same on the hind extremities, which did not appear to be affected. In the course of twenty-four hours the bowels responded to the oil; he then appeared to be thirsty; gave an occasional dose of nitrate of potassa, about a teaspoonful at a time, in water, and excited peristaltic action of the bowels by administering enemas of soap-suds. His limbs were bathed with warm water, bandaged and rubbed, but all our efforts proved unavailing; he experienced no sort of relief from the treatment; and finally, three days from the period of the attack, he got down and seemed to die without a struggle. His death occurred on the first day of December, 1856.

There is no doubt that Black Hawk was fed with too liberal a hand. How far the plethoric condition, which was evident from the quantity of fat found in the abdominal cavity, contributed to the development and fatal termination of his last illness, we are unable to demonstrate, but certain it is, that fat or plethoric horses and disease are "hail fellows, well met," so that if horse owners desire to keep their animals in a physiological condition, they must avoid the popular error of piling on the fat.

A very valuable lesson may be derived from the above. Here is a horse suffering from an acute malady, which the authorities contend can be subdued or controlled by the fleam or lancet; this animal was pretty essentially phlebotomized and without the least mitigation of the inflammatory symptoms, and we have no doubt, as our friend, Dr. Wood, has remarked, that the prostration of the animal, by bleeding, operated unfavorably; consequently we must not place too much confidence in remedies even when sanctioned by high authority.

The following remarks in reference to the death of Black Hawk are from the pen of Dr. G. S. Gale, contributed for the "Vermont Stock Journal:"—

The death of Black Hawk took place at the stable of David

Hill, Esq., Bridport, Vt., Dec. 1, 1856. The *immediate* cause of death was congestion of the lungs. He had had several attacks of rheumatism, the last of which occurred a few days previous to his death, and was very severe and painful. The rheumatic inflammation, probably, affected his heart, as is common in man. The amount of pain and suffering exceeded anything I ever witnessed in the brute creation. There was no *post mortem* examination, but the skin was removed, and will be suitably preserved, and his remains were interred, with his "martial cloak (blanket) around him." Whether they will remain in peace, and a monument be erected over the spot to commemorate his pre-eminent fame, (as has been proposed,) or whether they will rise by the hand of the *resurrectionist*, and, after having undergone various manipulations, grace the anatomical museum of the capital of the Empire State, as *has been requested*, I cannot say. The distinguished Professor of Anatomy in the Albany (N. Y.) Medical College has offered to prepare, at his own expense, the bones of Black Hawk, and suitably mount the skeleton in the Museum of the College, which is always open to the inspection of the public. The Professor thinks this would serve to "perpetuate the fame of one of the most remarkable of the equine race." Mr. Editor, whether a monument is erected over his remains, or his skeleton grace an anatomical museum at Albany or elsewhere, is not so material, as the question how the improvement of the noble race he has left among us shall be continued. This last question is of paramount importance to the farmers of Vermont, and of Addison county in particular. The "Vermont Stock Journal" comes in just the "nick of time," and I hope and expect it will be the medium of enlarged thoughts and wise experience."

The bones of Black Hawk are now in possession of the Faculty of the Boston Veterinary College. — ED.

SELF-CULTURE.—It is our business to cultivate in our minds, to rear to the utmost vigor and maturity every sort of generous and honest feeling that belongs to our nature. To bring the dispositions that are lovely in private life into the service and conduct of the commonwealth; so to be patriots as not to forget we are gentlemen. To cultivate friendships, and to incur enmities. To model our principles to our duties and situation. To be fully persuaded that all virtue which is impracticable is spurious; and rather to run the risk of falling into faults in a course which leads us to act with effect and energy than to loiter out our days without blame and without use. He trespasses against his duty who sleeps upon his watch, as well as he that goes over to the enemy.—*Burke.*

THE HORSE.

Ike Partington is well advanced in his class. He is in some things beyond the teacher's art, and could, in fact give that functionary some lessons in arts wherein he is perfect. Ike dislikes "composition," where a theme is given out to be written upon by scholars, and his credits are not very great for his efforts in that direction generally; but the other day he astonished the master and every one in the school by an elaborate article on the horse. He was called upon to read it aloud to the scholars, and on getting upon the platform, he made a bow and began:

"THE HORSE.—The horse is a quadruped with four legs, two behind and two before. He has a tail that grows to the hind part of his body, that nature has furnished him with to drive the flies away. His head is situated on the other end opposite his tail, and is used principally to fasten a bridle to him by, and to put into a basket to eat oats with. Horses are very useful animals, and people couldn't get along very well without them, especially truckmen and omnibus drivers, who don't seem to be half grateful enough because they've got 'em. They are very convenient animals in the country, in vacation time, and go very fast over the country roads, when boys stick pins in them, a species of cruelty that I would not encourage. Horses are generally covered with red hair, though some are white, and others are gray and black. Nobody ever saw a blue horse, which is considered very strange by eminent naturalists. The horse is a quiet and intelligent animal, and can sleep standing up, which is a very convenient gift, especially where there is a crowd, and it is difficult to get a chance to lay. There is a great variety of horses — fast horses, and slow horses, clothes horses, horse makerel, saw horses, horse flies, horse chestnut, chestnut horse, and horse radish. The clothes horse is a very quiet animal to have around a house, and is never known to kick, though very apt to make a row when it gets capsized. The same may be said of the saw horse, which will stand without tying. The horse fly is a vicious beast, and very annoying in the summer time when a fellow is in swimming. Horse mackerel I don't know anything about, only they swim in the water, and are a species of fish. Horse chestnuts are prime to pelt Mickies with; and horse radish is a mighty smart horse, but bad to have standing around where there are children. The horse is found in all countries, principally in livery stables, where they mey be hired by the mile and are considered by them as can get money a great luxury especially in the sleighing season. In South America they grow wild, and the Indians catch them with nooses that they throw over the horses' heads, which must be thought by the horses a great noosense."—*Sat. Eve. Post.*

EMPIRICISM.

[Written for this Journal, by R. Jennings, V. S., Cleveland, Ohio.]

Quackery seems to be the order of the day. This assertion needs no proof beyond the natural senses of every man, woman, or child. In whatever section of the country the Veterinarian may pitch his tent, he is surrounded by hosts of empirical practitioners. Smiths generally pretend to be horse doctors. The constant forging of the iron, fitting of the shoe to and nailing it on the foot, in many cases being the extent of their qualification as practitioners of the healing art. There are many men, however, engaged in the business of shoeing horses, who are educated, and otherwise qualified for the veterinary profession. My remarks apply only to the illiterate, whose knowledge of medicinal agents are only superficial. In addition to these, almost every horse owner has his favorite remedies for certain diseases: for instance, whiskey and pepper for colic, molasses and milk for bots, &c.; and without being able to diagnose the most simple disease, are continually falling into fatal errors, administering their medicines at random. Hit or miss, kill or cure, all the same. It is not unfrequently the case that harmless remedies produce death, from ignorance or carelessness in the manner of administering them. A case in point. I was called on the morning of February 7th, 1857, to see a horse belonging to Mr. D. C., of Cleveland. I found my patient laboring under a very severe attack of inflammation of the lungs. On inquiry, I was informed that the evening previous the horse appeared to have a slight cold. A quart of linseed oil was given him through the nostrils, which produced violent coughing. The respiration from this time became very much disturbed. Several persons who saw him at this stage of the disease, ventured the opinion that he was troubled with bots. Instead of bots, however, the cause was with themselves. Had not the oil been given, these alarming symptons would hardly have appeared. Every medical man will recognize at once the cause of all the difficulty. A portion of the oil having passed down the trachea and bronchia into the lungs, acting as a foreign body, produced violent inflammatory action in those parts. This accident, if it may so be called, sometimes happens while drenching by the mouth. Prognosis unfavorable. Symptoms; schneiderian, membrane and conjunctiva highly injected; pulse, small and wiry; respiration, hurried; laid down three different times, but arose quickly; head drooping; loss of appetite; legs, ears, and muzzle cold; eyes languid, and sheath much swollen. After administering the usual sedatives, with counter-irritants externally, without relief, the

animal gradually yielding to the ravages of the disease, I gave internally sulphuric ether and tincture of opium, each one ounce. The horse, however, experienced no relief, and died in a short time afterwards. I anticipated the privilege of making an examination. It being Sunday, however, and parties interested being conscientious, I was informed that he would not be removed until Monday morning. Having made my arrangements to be on hand at the appointed time, you may judge of my disappointment on arriving at the place, to be informed that the horse had been hauled away on Sunday, and that, too, before I was out of sight of the place, (or at least, I was so informed,) and fed to the hogs. From such information as I could gather from those present, I came to the conclusion that the lungs were in a hepatized condition. Using his own language, the lungs were so rotten that you could push your fingers through them, and they would not bear their own weight. "The liver was bursted in a thousand pieces." On questioning my informant, I came to the conclusion that the natural divisions of the liver into the larger and smaller lobes, had been mistaken for rents in that organ. I could learn nothing in regard to the appearances of the abdominal viscera other than above stated. From this you may see that the whole affair was very unsatisfactory to me, and one of the most important features in this report defeated in consequence. I leave your readers to draw their own conclusions.

Respectfully yours,

R. JENNINGS, V. S.

TRICKS AND HABITS IN HARNESS HORSES.

There are many habits horses may have that in no way owe their origin to vice, yet are often as troublesome and sometimes as dangerous as those which have.

I have lately said as much about breaking horses as I consider may be useful to the casual reader to know, and more I suspect than most persons would take the trouble to put into practice. If, however, I give such hints as may enable them to know whether horses are being judiciously treated by others, my time will not have been misspent. I had always a peculiar pride (I must call it) in not being beat by a horse, and candidly allow have often taken more pains to cure a fault or failing than it was worth.

Having said so much about harness horses, I am induced to mention certain habits many horses have that are very annoying. Hugging the pole is one. It greatly annoys the other horse, and he will probably learn to do the same thing, not from imitation,

but from leaning inward so as to enable him the better to stand against the other leaning on him. I have often seen a pair of horses thus going, each leaning on the other, till they might be figuratively likened to a pair of open compasses. It is exceedingly dangerous in frosty weather, or where the road or pavement is from any cause slippery. It has the effect of causing the horse in descending a hill to draw straight from the pole, by which they are at their full length; whereas, horses going (as they should do) a little wider than on ordinary occasions somewhat shorten the length by being drawn out a little diagonally. A further advantage is gained by this; it gives the horses greater power to keep the pole steady, which is quite necessary for safety in going down a steep hill. Hugging the pole may be prevented in a great measure by hitting a horse on the inside shoulder, but this lasts only for a minute; and, again, if the horse is hit severely enough to produce the desired effect, he very probably rushes forwards, thus relaxing the pole-piece, and leaving the entire weight of the descending carriage to be supported by the other horse.

A horse having this vile habit I should strongly recommend others to sell, unless they were disposed to try a plan that I found effectually cure one of my own of the propensity. I drove him at the wheel on the off side; but, whichever side he was put, he "hugged the pole" the same. I had a piece of board, about ten inches in width, screwed to the off side of the pole. On the off side of this surface I nailed some strong green furze, clipping it till it did not project more than three inches on the side the horse went. I took care to give him a hole in the pole-piece, the same with the near trace, and lengthened his coupling rein; so he had not occasion to approach the pole thus armed. This being merely a lesson to the horse, I took care to manage the drive so as only to have occasion to turn the carriage to the off side during the lesson; as usual, he began, or attempted hugging the pole, but he started from it as if a tarantula had stung him. I suppose in a few minutes the smarting went off, when he tried the same game, with the same result. I conclude the second application of the furze, acting on the first, produced increased effect, for it was a longer period before he transgressed again; and before my drive was finished he took especial care not to approach the pole.

Though this bid fair as to curing him of a bad habit, I in no way expected a lesson or two would cure him; but ten days driving effectually did, and afterwards it was somewhat laughable to see if he forgot himself, or attempted pole hugging, with what alacrity he jumped back to his proper place. I certainly found a trifling inconvenience from his subsequent dread of the pole. If I wanted to turn the carriage to the near side, the other horses or

horse, if only a pair, had to do it; for save and except the off side trace, he would not, so far as the pole went, lend a hand.

This was, however, nothing, when put in comparison to hugging the pole. Whether in the course of time he forgot the lessons I know not, but he quite well remembered them during the twelve months I drove him, when I sold the team.

Another very objectionable habit some horses have, is the direct opposite to the last mentioned one; this is, hanging away from the pole, especially in going down hill; some horses will practise it to a really alarming extent. Driving one of the Bath coaches, on coming to a hill the coachman warned me "to mind the two wheelers, for they were very awkward." I soon found them so, for they went down the hill hanging away from the pole till their position and bodies could only be figured by the letter "V," the off-side wheeler, as it were, riding on the off-trace till we came to level ground. He was a very clever horse, and a very fine goer, probably sold to a coach for the very fault I have described. From his hanging off the pole he so lugged it to the off side that the near wheeler, in his own defence, was forced to do the same thing to counteract the effect produced by the other horse; hence their both going, as I have said, like the letter V. I thought he would be a good subject to expermentalize upon. I bought him. For his accommodation I had a deal rafter fixed to the splinter bar, this was brought a foot beyond the roller-bolt: then I got another piece, and loosely fastened that to the end of the transverse piece, bringing it like a shaft to the front of the horse's bosom, and fastening it to the harness. Just where his quarters would come if he leaned outwards. I clothed it, as in the other case, with furze. The result was, *mutatus mutandis*, the same: in a few times driving it cured him. I never had occasion to try the experiments on other horses, so do not give them as a general mode of curing all horses practicing the same annoying habits, but it completely succeeded with the two I have mentioned; and I merely relate the two anecdotes to show that a very simple contrivance will often baffle a horse, without any direct violence being used.

Some horses have a habit of (as it is termed) snatching at the traces on first starting. This I have frequently stopped by putting a cavesson on, and fastening an extra rein to the pole. If the horse brings his head to a proper place and goes off quietly, this is no inconvenience to him: but if he bolts suddenly forward, wildly throwing (or attempting to throw up) his head, it gives him rather an unpleasant snatch back, accompanied by a pinch of his nose. A few lessons will in most cases check it.

With a heavy carriage behind, this fault is not much consequence, its only effect being possibly the breaking of a trace, unless

a very strong one; but in a light vehicle the violent snatch is very unpleasant, and it is quite worth the trouble of curing, or, at least attempting to cure.

It is frequently found that horses, on receiving any indication to stop, will do so suddenly, creating an unpleasant sensation to those within the carriage. Old Donnington, the race-horse, did something similar—he knew just as well when he had passed the winning-post as did his jockey, and, winning or losing, would, if permitted to do so, stop as if he was shot, and, with a jockey who did not know this propensity, would very likely unseat him.

The only way was to threaten him with a whip, and thus keeping him going till he stopped gradually like other horses. The horse that does the same thing in harness must be kept up to his collar by feeling the whip till the carriage is smoothly and gradually brought to a stop.—*London Field.* HARRY HIBOVER.

CASE OF PERICARDITIS.

[Written for this Journal, by R. Jennings, V. S., Cleveland, Ohio.]

I was called January 23d, 1857, to see a bay horse, belonging to Messrs. Brooks, of this city. I found, on my arrival at their stable, my patient lying on his right side, the owner having made several ineffectual efforts to hoist him upon his feet. I directed that he should be allowed to remain in that position, as he had chosen it. Symptoms: schneiderian membrane slightly injected; conjunctiva, nearly natural in color; pulse, full, hard and rapid; heart violently agitated; respiration slightly disturbed; legs, ears and muzzle cold; gasping continually; lips parted, tongue protruding; under jaw kept moving in a lateral direction; tongue much lacerated by the teeth. Patient made no effort to change his position. Turned him on the left side, in which position he remained up to the time of his death. Administered internally the following, made into four balls:

℞	Antim. Tart., - - - - - - -	℥ij.
	Pulv. Camphora, - - - - - -	℥ij.
	" Digitalis, pur., - - - - - -	℥j.
	" Nit, Potassa, - - - - - -	℥js.

One to be given every two hours. Saw the horse the next morning. Assured the owners that there was no possible chance of recovery. Thereupon a gentleman volunteered his services, believing that he could cure him. I, of course, gave up the case to him, requesting that I might be informed of his death, in order to afford me an au-

topsy. Two days after, I received a message informing me that he was dead. I took advantage of the opportunity, and made an examination of the body, (thermometer at 10 below zero,) which revealed the following facts:—Stomach and intestines, in fact all the abdominal and pelvic viscera, were comparatively in a healthy condition; the thorax, however, presented a very different appearance. The lungs were emphysematous, adhesions between the pericardium and heart in several places, a small quantity of coagulable lymph contained within the sac, with a considerable quantity of yellow serum. I should have mentioned that on two previous occasions I was called to treat this horse for lameness, the precise nature of which I do not remember.

RUPTURED LIVER IN THE HORSE.

[Reported by Professor Charles M. Wood for this Journal.]

MR. EDITOR: On Wednesday, May 21st, 1856, at 3 o'clock P. M., I was requested to visit a horse, the property of a gentleman a few miles from this city. My subject, a sorrel horse, seven years old, and one of the Messenger breed, presented the following symptoms in a marked degree. The horse was standing in his stall, with his head turned to the right side. Respiration, extremely laborious, and accompanied by a grunting sound. He occasionally pawed his bedding, sighed frequently, appeared anxious, took neither food nor water, voided no fœces, but urinated freely; belly of natural size, pulse very indistinct, mouth and tongue pallid. The conjunctiva and schneiderian membranes, also. Surface of the body, cold and clammy, and sweating in spots. I ordered my patient put into a loose box, had him well clothed, gave a diffusible stimulant from a bottle, and left him.

At 6 P. M., again visited my patient. Symptoms, as follows:—Pulse scarcely perceptible; very restless; the visible mucous surfaces now quite pallid; sighs more frequently, and looks anxiously to the right side; has made several attempts to lie down, but appears afraid to do so; approaching dissolution evident.

At 6 1-2 P. M., in an attempt to lie down, he falls suddenly forward in his stall, and dies almost without a struggle.

The autopsy took place immediately after death. On opening the abdomen, a quantity of fluid blood was found in its cavity; also a large coagulated mass beneath the investing membrane of the liver: which membrane was ruptured in several places. There were also several small abscesses, which contained a kind of un-

healthy looking pus. The intestines, stomach, kidneys, bladder, and also the lungs, were apparently healthy. The horse was not known to be sick, till noon of this day. His refusal of his noon feed first excited the attention of his attendant. But the disease of the liver must certainly have existed for a much longer period; although he had never failed in his daily exercise, from the time of his purchase, two years before, up to the time of his death. Internally, he was extremely fat.

The above is a brief notice of the symptoms and death of a case somewhat remarkable, although readily accounted for by post mortem examination. What is most remarkable, however, and of no little practical importance is, that the horse should have been daily in the performance of fast work, as a trotting horse. He had taken his usual exercise on the morning of the day on which he died, and to all appearance was in his usual health and spirits.

CASE OF LITHOTOMY IN THE HORSE.

BY JOHN FIELD, M. R. C. V. S., LONDON.

Lithotomy, although now-a-days not perhaps a very rare operation in the horse, is still one so seldom brought to the notice of the veterinary surgeon, that I think an account of a case which has lately been under my care may not be uninteresting to your readers.

A thorough-bred bay gelding, which had been used as a hunter, the property of a gentleman, was recently admitted into the hospital. The symptoms, as described by the owner, were frequent staling, a gradual wasting away of flesh, and, after violent exercise in the hunting field, the passing of a quantity of blood with the urine. Upon an examination being made per rectum, the bladder having been previously emptied, a calculus about the size of a walnut, could be distinctly felt within the viscus. The owner was recommended not to incur the risk of an operation, if he could get a fair price for the horse; and he was accordingly offered for sale by public auction, but was bought in. It was then decided to perform lithotomy, and the horse having been prepared for the operation, was cast, and secured on his back in the usual way. The penis was then drawn forward with some little difficulty, and the staff was passed along the urethra up to the sub-anal portion of the canal, where it could be distinctly felt. It was then cut down upon, very little hemorrhage taking place, and the forceps being introduced into the bladder, the stone was immediately grasped, but unfortu-

nately in attempting to draw it out it was crushed; however, the greater part being removed by the forceps, the remainder was easily washed away by means of a syringe and warm water. The removal of the whole of the calculus being effected, the external wound was brought together with two sutures, and the horse allowed to get up.

After the operation, some urine was passed through the wound for a few days, and subsequently considerable œdema came on of the sheath, but which was relieved by being repeatedly douched with cold water. About a fortnight after the operation, an abscess formed in the sheath; it was, however, not attended with any untoward consequences. Besides the continued use of cold water to the parts, the animal had occasional doses of Bal. Copaibæ given him. He continued, from the period of the evacuation of the abscess, to improve in condition; the wound in the urethra soon became perfectly healed, and the œdema of the sheath was likewise entirely removed, when he was discharged from the hospital. Under such favorable circumstances as these, I hope soon to have the pleasure of seeing his owner riding him again to the hounds.—*Veterinarian, London.*

MONKEY CIVILIZATION.

Monkeys seem to hold a rank somewhere between the quadrupeds and the birds, when they are found in their natural state, living on the trees in the vast Brazilian and African forests. They walk with difficulty upon the ground, and some of them can almost fly. Swinging and climbing from branch to branch and from tree to tree, with the aid of four or five hands, and supremely indifferent which end of them is uppermost, they make long journeys in search of fruit and eggs. As they can escape from lions and tigers with great facility, serpents are the only enemies really formidable to them. In some species the little troops are united as if they were one sole family, under the chieftianship of an old male. When chief assembles his clan, he makes such a howling noise, and the troop gather round him with such submission, that he has been wickedly called the preacher monkey. Everybody knows how capricious they are, being alternately curious and indifferent, tranquil and tricky, playful and furious. The greatest affection between the males and females does not prevent them from stealing each other's food. They never have recourse to force, but always to sleight of hand, in accomplishing their thefts. M. Frederic Cu-

vier says, the basis of the education which the female gives to her little ones is an apprenticeship in theft. Monkeys maraud in the neighborhood of man like the French soldiers of the first empire. Sentinels are planted to give the alarm of danger, and lines — or, as the French call them, queus, or tails — are formed to hand the fruits, which are lodged in their stores with great rapidity. The dangers of the marauding monkeys and soldiers are identical, for wherever the use of fire-arms prevails they are shot without scruple. —*Household Words.*

ON THE PRODUCTION OF TÆNIA, OR TAPE WORM, CONSIDERED IN RELATION TO PUBLIC HYGIENE.

BY DR. RIECKE.

It has been well proved by the experiments of Kuchenmeister, that individuals fed on pork tainted with "measles," and containing the peculiar entozoon called *Cysticercus cellulosæ*, become subject to tape-worm. Various German writers have supposed that these entozoa are destroyed by boiling, salting, and smoking the pork; and Dr. Riecke, of Nordhausen, has published a paper, in which he recommends the prohibition of the sale of pork, unless it has previously undergone these processes. In support of his views, he states that tænia is an exceedingly frequent complaint in the neighborhood of Nordhausen, where there is a large consumption of raw pork by the people; and, on the other hand, that in Altmark, where this practice is not prevalent, he has only seen six cases of the disease among about 10,000 patients who have been under his care, during a period of fourteen years. He therefore considers that, in order to prevent the spread of this parasite, all pork should be prepared, by salting and smoking, before it is sold, or permitted to be used by the people.—*Henke's Zeitschrift.—Edinburgh Medical Journal.*

PREMIUMS FOR AGRICULTURAL SOCIETIES.

The "Veterinary Journal" is an appropriate premium in addition to the premium list offered by State and County Societies, and probably would be as acceptable to the farmer as any monthly yet offered. It is calculated to enlighten the husbandman on the why and wherefore of equine and bovine diseases, &c., and an agricultural library is incomplete without it.

PARALYSIS IN THE HORSE.

[Written by Professor Robert Wood, Lowell, Mass.]

This affection is often symptomatic of various diseases, such as apoplexy, injuries, poisons, tumors, (located in parts where by their pressure they prevent the physiological transmission of nervous influence from the brain to the organs of motion,) plethora, or the opposite, anemia. The latter, by relaxing and enervating the system, is a frequent cause of this disease.

I will give a few cases in illustration of the causes, character, and treatment of this disease, as it has occurred within my observation.

Case 1st—Hemiplegia. The subject was an aged team horse, belonging to the Amoskeag Old Mills, Manchester, N. H. Symptoms: pulse and respiration below the natural standard; coat staring, bowels costive; membranes of pale color; appetite tolerably good, but mastication was performed with some little difficulty, as also was the gathering of the food, the lips being turned on one side. The motor power alone was impaired. The intellect was unimpaired. Whatever was commanded of him to do by the teamster, he promptly attempted; and in going to the watering trough, about six rods from the stable, his motor power being one-sided, he actually turned around when about half way, not being able to reach it in a straight line.

Diagnosis—effusion in the ventricles of the brain. Treatment—gave a cathartic. On the following day I sent six balls, each ball containing—

℞ Hyd., Sub., Mur., - - - - X gr.
Strychnia, - - - - - 1 gr.
Cort, peru, ℥ss Syr. Suff.

One of these balls to be given morning and night. On the fourth day I again visited my patient, and found him somewhat improved, his bowels had responded to the cathartic, his coat looked better, appetite good, pulse 40, respiration 16, and on being turned loose to go and drink, he walked stronger, and although his line to the trough was rather crooked, he succeeded in reaching the trough without turning around. Continued the same treatment, and ordered him to be walked gently twice each day. This horse not being very valuable, in consequence of his age, and situated thirty miles from me, and my employer possessing some knowledge *of horse flesh*, I requested him to write me in a few days how my patient got along. Accordingly, on the ninth day after I first saw him, I received a letter, informing me the horse was improving fast, but that he was

rather costive, and requesting me to send more medicine, the succeeding twenty days he had a ball given him, composed of

Aloes, barb. - - - - -	ʒ ss.
Cort. Peru, - - - -	℥ ss.
Strychnia, - - - -	2 gr., syr. suff.

At the end of this time I was informed by letter the horse had been put to work and appeared perfectly well.

(To be Continued.)

ANNUAL MEETING OF THE CORPORATION OF THE BOSTON VETERINARY INSTITUTE.

The Annual meeting of the Corporation of the above Institute was held at the office of the Secretary, at the State House, at 12 o'clock, February 28th, 1857.

The Secretary read the proceedings of the last meeting, also, a letter from Dr. D. D. Slade, resigning his office as President, which was accepted. The Corporation then proceeded to choose a successor, when the Hon. Moses Newell, of West Newbury, was unanimously elected.

Dr. Dadd then announced the death of Dr. Jonas Chapman, a member of the corporation, with appropriate remarks on the character of the deceased.

The vacancy occasioned by the death of Dr. Chapman was filled by the election of Josiah Crosby, Esq., of North Andover.

The vacancy in the Board of Examiners, occasioned by the resignation of Dr. Slade was filled by the appointment of Dr. J. V. C. Smith, of Boston, to that office.

A motion was made to increase the number of the members of the Corporation, which motion was finally laid over for consideration at the next annual meeting.

Dr. Dadd announced the reception of the bones of the celebrated horse, Black Hawk, which had been donated to the Institute by David Hill, Esq., of Bridport, Vermont.

On motion of W. S. King, Esq., a vote of thanks was unanimously given to Mr. Hill for the valuable donation.

Dr. Dadd announced that he had received from a few individuals the sum of ninety dollars for the purpose of purchasing anatomical specimens for the use of the Professors of the Institute.

Other business of minor importance was transacted, when it was voted to adjourn until the next annual meeting.

CHARLES L. FLINT, Secretary.

Boston, Feb. 28th, 1857.

RUPTURE OF THE RECTUM.

REPORTED FOR THIS JOURNAL BY CHAS. SCRUTTON, V. S., NEW BEDFORD, MASS.

MR. EDITOR: Not long since a very singular case came under my observation, which may prove of some interest to the readers of your Journal, and if you think it worthy a place in the same, it is at your service.

On the evening of Oct. 22d, 1856, I was called to examine a horse, the property of Mr. George Russell, who resides at Acushnet Village, about three miles from this city. The messenger informed me that the horse was suffering severely from colic. I immediately repaired to the spot, and found the subject; a gray horse, twelve years old, weighing about nine hundred pounds. He had been suffering about eight hours. He was now standing with his forward legs advanced, and his hind extremities under the body, as if preparing to void urine. He soon altered his position, and cast a wistful look at his side, pawing his bedding with his forward feet, and manifesting great uneasiness by getting up and lying down in rapid succession. On enquiry I found that they had given him three ounces of lobelia seeds, with gin and molasses, and this not having the desired effect, they continued to dose him, until he had swallowed medicine enough to make his stomach a sort of an apothecary shop on a small scale.

The animal now being quiet I approached him carefully, when were presented the following symptoms. Respiration accelerated. Pulse fifty-eight and irritable. Conjunctival and schneiderian membrane highly injected. Countenance, haggard. Saliva discharging from his mouth. On placing my hand upon the body I was surprised to hear a sound, similar to that made by pressure upon curled hair. But, on inspection, I found that air was diffused beneath the skin to such an extent that the skin seemed perfectly tight all over the body. The tail was erect and inclined to the right side, the anus protruded about four inches; bowels constipated, and nothing had passed them since the attack. Before giving me time to complete my examination, the owner seemed anxious to know what was the difficulty. I informed him that I was not yet fully satisfied; but thought, from what I could discover, that he was suffering from a rupture of either the stomach or bowels. The horse at this time was straining violently to evacuate the contents of the bowels, but without success. I then proceeded to examine the rectum, which fully convinced me in my suspicions. About twelve inches from the anus I found the intestine ruptured directly across it; and the whole pelvis completely filled with hard fœces,

from which I removed a peck. I now informed the owner that it would be an act of charity to destroy the animal, as there could be no hope of his recovery, in which he readily consented. I soon ended his misery by dividing the carotid arteries.

I now made some inquiry as to the cause. In answer to which my employer informed me, that he knew of no exciting cause. He had eaten his breakfast as usual, and was immediately put into harness and drove a distance of three miles. And as soon as he stopped he showed symptoms of pain, and continued to grow worse, until 9 P. M., when he was killed. After death I punctured the skin and allowed the air to escape, the subcellular tissue being emphysematous.

Post-Mortem examination. The stomach and intestines were healthy, with the exception of the rectum, which was highly inflamed about twenty inches of its length, and of a dark purple color. The lesion in the rectum was about three inches directly across its calibre.

TREATMENT OF AILING HORSES, ETC.

[FROM THE "LONDON FIELD, THE COUNTRY GENTLEMAN'S NEWSPAPER."]

There are few specific cases that have led to more disputes, private or legal, than the apparently simple one as to whether a horse is or is not sound. With deference I submit my ideas as regards this often disputed point. I conceive a sound horse to be one at the time free from ailment, either outwardly or internally, and one who exhibits no direct predisposition or likelihood, with fair and judicious treatment, to become otherwise.

The taking a professional opinion on this subject generally saves an infinity of after trouble and dispute. It sets the case at rest at once; a horse having undergone such scrutiny acquits in nine cases in ten the seller of any imputation of having (willingly) sold an unsound horse, and may in most cases satisfy the purchaser that he has bought a sound one. But be it remembered that neither the physician nor veterinarian is infallible, though in most cases correct, and the Vet., when called on in his public capacity to examine a horse, has only to pronounce his opinion as to whether the animal is sound, or the reverse, at the time he is shown to him for examination. As an honest man he does this, and is bound, in all fairness between buyer and seller, so to do; but at the same time the *opinion* he so gives is a very different thing from the *advice* he might give to a friend as a friend. For instance, some horses' hocks are so formed, and so placed, as, in technical phrase, to cause the horse to

be termed a "curby hocked one," which means that, when put to work, the horse having such is almost sure to throw out curbs, or spavins, of more or less magnitude. Now this is no unsoundness, nor can it physically, or rather anatomically, be called a "malformation," though it virtually is so. The Vet. would not be justified in rejecting such a horse as an unsound one, though he might privately advise a friend not to buy him; and there are many cases indicating a likelihood of ailment that are no present or immediate certainties of bringing on unsoundness. We must not hang a man on suspicion, nor is a Vet. authorized in condemning a horse on the same premises.

I think I may say that, among the very many horses I have bought for myself, I never took half a dozen professional opinions in my life, and among the hundreds, and many hundreds they have been, that I have purchased for others, I have very rarely omitted doing it. It has been a satisfaction to myself doing so, and no imputation could then be cast on my judgment; and again I felt, and I would strongly recommend others to consider the same, that, in the case of the lowest-priced horse, if he was worth £20, he was worth £20 10s. What I might choose to do in my own case has nothing to do with the matter. If I chose to trust to my own judgment in such cases, the risk was only mine; and, fortunately for me, I did not often suffer by it.

There are cases in which no professional skill can insure our not getting an unsound, or, at least, an objectionable, animal into our possession—for instance, one subject to me grims or staggers on occasion, particularly in very hot weather. A horse may have had a strain, from which he was to all human judgment or foresight cured. He appeared so at the time of sale, but on being put to work the old grievance comes out. In cases where fraud is intended, hot water and positive rest will do wonders, against which all skill is set at naught. A chronic cough quietude and sedative medicines will sometimes allay. In short, there are cases in which the most astute medical practitioner may be deceived by equally astute rascality. I could make a regularly broken winded one breathe as placidly, and without that peculiar jerk of the abdominal parts, as any sound winded horse, (that is, for a few hours,) by what means I need not tell those in the secret, and certainly shall not tell those who are not.

The only resourse left us in cases where treatment baffles even professional skill is, to find out whether the animal has at a prior date been subjected to lameness, or constitutional defect; in such case, though he went sound at the time of sale, and no visible remains of disease existed, he was not, strictly speaking, a sound horse, and a seller would by any jury be cast, and compelled to take

him back. I mention these cases, which are, perhaps, of rare occurrence, to show that, if persons with professional skill and ingenuity may yet be deceived, how little ought the generality of buyers to trust to their own judgment.

I am quite ready to admit that few men holding the character of gentlemen would so far degrade themselves as to sell an unsound horse for a sound one. I should equally acquit a respectable dealer in horses from any such intention; but either may be or have been deceived; and one or the other, on selling a horse, and on his being subjected to professional investigation, may be perfectly astonished at finding him rejected as an unsound animal. The gentleman would probably be at once exonerated from any dishonorable intention by his compeers, but nine persons in ten would at once condemn the dealer as having endeavored to impose upon them. Give a dog a bad name, &c.; but the former sweeping allegations against dealers are fast wearing away, and people very properly now hold a respectable dealer in horses in the same light as a respectable dealer in any other marketable commodity. The chief cause that led to the dealer in horses being held in the bad odor he was arose from the variable nature of the article in which he dealt. A wine merchant can decide to a certainty whether his wine is sound or not; a dealer in horses cannot come to so decided an opinion as regards his horses.

It appears somewhat extraordinary to those well acquainted with horses, the difficulty there sometimes is in making others perceive that a horse goes unequally—in fact, goes lame; they cannot detect it in the gait of the animal. There is one way in which I have found them detect it at once. If it is a sunshiny day, direct their attention to the shadow of the horse's head on the ground, or better still, against a wall; here they will perceive a jerk in the shadow by the motion of the head, that no pointing out could make them detect in the motions of the animal. The same holds good as regards a horse defective in his wind. Place him against any fixed object; the sudden jerk of the body thus affected usually make is perceived at once, though not to be detected by an unpractised eye, by merely looking at the horse as he stands under ordinary circumstances. Such practice is not, I grant, very artistic; but it answers the purpose when used in the case of those who are not artists.

I frequently remember the old adage:

> A little knowledge is a dangerous thing;
> Drink deep, or taste not, &c.

If a man knows enough to save himself in ordinary cases from loss or deception as regards his horses, it is well; but if he knows

just so much more as to induce him to act on his own judgment, without that judgment being sufficiently formed to secure him from error, he has only sipped of the water of knowledge, but has not drunk deep enough for any useful purpose. For those in the latter situation I shall venture a few more observations on the subject of soundness, in my next article.

HARRY HIEOVER.

CASE OF RUPTURED LIVER NO. 5.

COMMUNICATED FOR THIS JOURNAL BY PROF. ROBERT WOOD, V. S., LOWELL.

June 14, 1856. I was requested to make an autopsy of a three year old colt, which had been found dead in the pasture early this morning. The owner informed me that the colt had been sick with "colic," about two months previous, that he was sick several days, but recovered, and was in due season turned out to pasture with other colts, and had apparently thriven well. Late in the evening of the day previous to his death he was seen running and playing with the other colts.

The autopsy revealed enlarged, softened, and ruptured liver, the abdomen was filled with blood.

Remarks. Probably this colt's first sickness was bilious colic, and from the peculiar manner of the course of treatment pursued for its cure, it assumed a chronic, inflammatory form, the liver becoming so softened that the exertion of the animal in playing the night previous, was sufficient to produce the rupture and almost immediate death.

I have now given five cases of ruptured liver, nearly all of which vary in their premonitory symptoms, shewing how necessary to the success of the practitioner is accuracy and fidelity in the observance of symptoms. There being radiations from disease, which, when carefully observed, guide him in the detection of its nature, locality and cause. Our patients not possessing the power of speech to inform us of the sensations they experience, our strict observance of symptoms constitutes the only source from which we can make a rational diagnosis of the malady with which they may be afflicted.

TO OUR READERS.

This Journal is progressive, and our readers will notice some improvement in every successive issue; therefore those who receive a specimen number should subscribe, and induce their friends to do likewise.

TENOTOMY.—(DIVISION OF THE FLEXOR TENDONS, FOR "SPRING KNEES."

Definition.—To say nothing of the valuable elucidations human anatomy and physiology have from time to time received from the investigation of the structures of different animals, and the varieties in their general economy, we may take occasion to remark here, that the operation we are about to take into our consideration appears to be purely of veterinary origin and growth, and that for any utility it may have turned out to be to the surgeon, he stands debtor to the science and practice of the veterinary surgeon. So long ago as the time of Vegetius, horses were "said to be stiff-limbed," suffering "from a contraction of the nerves (*tendons*) in their feet," treading "with the tops of their hoofs," having "their joints rigid and stiff," unable to "set their hoofs fully upon the ground." And though since the age in which this father of veterinary medicine lived, "stiffness of limb" or "stiff legs" have found mention in works on farriery, with some ridiculous nostrum for their relaxation and relief, yet has the description, brief as it is, remained, in a practical view, unsurpassed, and the ailment without a remedy, up to the time of the improvement which farriery in our own country underwent some few years anterior to the introduction of veterinary medicine as a science.

All the history I am able to glean of the suggestions and practice of an operation which has proved—so far as remedy can be expected to turn out—of effective service in such distortion of limb, is to be found in the third volume of *The Veterinarian* (for 1830.) In a communication therein "of the Edinburg Veterinary School," from the late Mr. Castley, at page 309, we read that Mr. Dick's (the present veterinary professor at Edinburgh) father occasionally practised this operation many years ago; and I (Mr. Castley) have heard it said, but I know not how far that may be correct, some other person in Scotland." The earliest intimation I had myself of the operation was, many years ago, through some articles on the subject in the Sporting Magazine, by Professor Dick. I must confess, at the time, the operation, so purely mechanical, and so far unsurgical, as it appeared in my eyes, created in my mind any thing but a favorable impression. In theory I felt myself decidedly opposed to it. Nor was it any thing short of putting it with my own hand to the test that convinced me of its efficacy, without its being followed by those unpropitious consequences which in my own imagination I had conjured up as so many drawbacks against such an operation."

Mentioning the subject, in May, 1833, to Mr. Cherry—the pres-

ent Principal Veterinary Surgeon of the Army—it was resolved between us that the operation should be put to the test; and he having at the time a young ass in his possession, proposed that the animal should be subjected to an experiment which certainly entailed but little pain, and out of which benefit to science seemed likely to arise without the necessity of permanently laming or even of much disfiguring the animal. Accordingly, both flexor tendons of one fore leg were divided with a scalpel, and with them, unfortunately, owing to a struggle made at the instant, the metacarpal artery. The division at once let down the heel of the hoof more completely upon the ground, while the toe inclined to turn up; and when the animal came to walk, the toe, no longer being employable as a fulcrum, every time the maimed limb had to move forward, the body sank down on that side as though it would have fallen to the ground had it not been for the instantaneous transfer of the weight upon the opposite (fore) leg. A compress was applied upon the leg to stanch the hemorrhage; after which was effected, the animal was turned out to take its chance, without any bandage or application whatever to the incised leg. In this condition, under circumstances apparently little favorable to union, still did Nature's resources prove amply sufficient to heal up the wounded parts; and, in the course of time, to restore normal action; insomuch that Mr. Cherry kept the ass for his lifetime afterwards, using him for carrying his children, drawing a small water cart, &c.

The success or non-success of Tenotomy will depend on a variety of circumstances, most of which will, on due reflection, prove to be within the control of the veterinary surgeon. Of course the first, and indeed chief, consideration with him will be the fitness or non-fitness of the subject of such an operation. If he be called on to operate on a horse at every risk, in that case no responsibility can rest with him. On the other hand, when called on for an opinion, he will have to use both great judgment and great caution in giving one. Cases in which mal-position is clearly owing to anchylosis, though it be but partial, of the fetlock, or pastern, or coffin-joint, are irremediable in this way. Neither can cases of contracted limbs of many years' standing in aged horses be undertaken with any great hopes of affording relief. Nor indeed should very young horses, whose limbs have become crooked from overgrowth and weakness, be made the subjects; since their deformities, like those of children, admit very frequently of relief by other and simpler means, and with the accession of strength, with the aids of art appropriate for them, right themselves. Tenotomy may likewise fail of success from the operation being unskilfully or ineffectually performed. Or, the after-treatment may prove injudicious or even

hurtful, frustrating the good which the operation would otherwise have certainly effected.

The utmost we can expect from Tenotomy is to render a horse useful for certain purposes, who, before the performance of the operation on him, was in a condition of utter uselessness. If we restore a cart-horse to the plough where the land makes his work comparatively light;—if we can make a used-up hunter serviceable for harrow or dung-cart;—if we can send horses, good for nothing in their present state, to work in fly-boats, road vans, brick or sand mills, &c. &c., we most assuredly confer thereby, *quoad hoc*, good service on the public, to say nothing about the humanity of saving life whenever and wherever it may happen to be in jeopardy. As with neurotomy, we have had evidence of tenotomy being overvalued and misapplied. Each operation has its legitimate sphere of applicability and usefulness; to carry it beyond which is to bring it, undeservedly, into disrepute. Wisely applied and skilfully performed, both operations will redound to the credit of the introducers—Professors Sewell and Dick—wheresoever, and so long as ever, the veterinary art is practised.—*Percivall.*

FOOT ROT IN HORSES.—A POPULAR MEDICAL ERROR.

One of our subscribers wishes to know what is the best treatment for the disease now prevalent among some of our City horses, called the foot-rot, we would inform him that it must be treated according to the indications; at times local treatment alone may perfect a cure; at others constitutional remedies are needed in order to counteract the prostrating effects which long continued pain has on the system, or to improve the morbid condition of the body and prevent gangrene of the parts involved. The disease is probably of lymphatic origin, occurring in the deep-seated lymphatics of the foot, and generally occurs among horses of coarse breed and flabby organization. It generally commences at the anterior part of the *hind* feet, or on the inside of the same just above the hoof. We shall try to prepare an article on the subject for our next number. In the meantime we recommend our friend to try as local agents, astringents and antiseptics. Diluted pyroligneous acid is good, so also is chloride of zinc. In the putrescent stage use chloride of lime or finely-pulverized charcoal.

Popular error in regard to "*proud flesh.*" Some horse owners have a sort of hereditary prejudice in favor of the popular theory: 'that proud flesh must be got rid of at all hazards," and often a poor horse having a wound or abraded spot, presenting a healthy granu-

lating surface, has to submit to the application of Dr. Neverthink's remedy, which consists of nitrate of silver, or caustic potassæ. How the caustic action of either of these remedies can be confined to the luxuriant growth, and not effect the contiguous health granules, the *wise* men have not informed us. We clip the following from an article on "Popular Medical Errors," published in the "Medical World."

Proud Flesh.—Patients will frequently come to us to know if there is any proud flesh in their wounds. The fear of proud flesh is very general, and brings many patients to the doctor whom he would otherwise never see. When a wound is attended with loss of substance, it is gradually filled up by the growth of the surrounding parts — a process which is called granulation, from the grain-like surface it presents. The granulations sometimes rise above the level of the surface, and I suppose the term "proud flesh" was given to this appearance as a figurative term for a luxuriant or forward growth. There is really nothing bad or malignant, as it is called, in the elevation, but it is rather indicative of a complete and rapid repair. There are, it is true, complaints which are attended with what are named malignant fungous growths; but they are happily very rare, and quite unconnected with the healing of common sores. I shall not dwell, however, upon the latter, as it would carry me on to the description of a disease which is out of my present province. It is, perhaps, after all, almost a pity to disabuse the public mind of the idea of proud flesh, for it is friendly to the doctors, and may tend to induce the people to have their sores better looked after.

Remarkable Horse.—There is at the present time to be seen working at Sandbeck, on the estate of the late Earl of Scarborough, a horse of the name of Sharper, who has, during a period of twenty years, travelled the enormous distance of 104,000 miles, or above the distance of four times round the globe. The *Doncaster Gazette* says: "This remarkable animal has, during that time, been solely driven by James Forshew, who has been a servant on the estate for upwards of twenty years, and never lost a single day. Since the demise of the late earl, these two faithful servants have been separated — Forshew having been discharged. This old and valuable servant was much grieved in parting with his companion in labor."

IMPORTANCE OF VETERINARY SCIENCE.

In an article in the *Journal* of February 17, it is stated that "either in service, or in preparations for U. S. service, upwards of three thousand horses are required; and yet there is not a single veterinary surgeon authorized by law. Gen. Jessup therefore recommends, as a matter of economy, the organization of a veterinary corps; more being lost every year by the sacrifice of horses and mules, for the want of proper veterinary treatment, than would support the expense of such a corps.

The importance of veterinary science in this country has not been duly appreciated. The comparatively low value of live stock has prevented many from investigating the subject. If an animal was sick, the custom has been "to give it something;" and if it died, to buy another to replace it, the loss being hardly felt. Another, and perhaps greater reason for the neglect of this science, is the sparseness of population; there having been plenty of room, with but few over-crowded, ill-ventilated stables, while our natural grasses have been of a nature not producing disease. Moreover, many persons engaged in the active pursuits of business, have regarded this subject as of minor importance; while the character of some of the professed practitioners of the science has not impressed the community with an exalted idea of its importance, either in the scale of humanity or utility.

The time has now come, or very soon will come, for a different aspect of this matter. As the value of stock increases with our swelling population, diseases of different types will, to a considerable extent, prevail; and ere long it will become indispensable to have a class of persons thoroughly educated in Veterinary Science, upon whom full reliance can be placed in time of need. When, therefore, the American people take hold of this subject, it is sincerely to be hoped that they will *begin right*. For instance, a school should be established of a strictly veterinary character, aided by the National Government. Competent teachers should be employed, who are thoroughly qualified to instruct others, that these latter in turn shall also become competent teachers; so that the science shall go down from one generation to another, both without error, and with an increasing appreciation of its value. Again, the State Agricultural Societies should have an interest in this subject. There are very many persons, who, though they may not wish to become public practitioners, nevertheless feel a deep interest in this matter, and who would gladly devote the time required to a full course of lectures and demonstrations; willingly incurring the

expense, for the sake of the benefit which they are confident would accrue to them. 'To all such, therefore, and every well wisher of our country, I would commend this entire subject, hoping that these hasty and imperfect thoughts may not only start the matter, but also give it a right direction in starting.—*Boston Journal.*

SENDING CORN FODDER ABROAD.

The publisher of this Journal has printed several thousand extra copies of the January and February numbers, and has scattered them broadcast, for the benefit of all parties. All he asks in return is a candid perusal of the *Journal*, and an honest expression of the opinion of the reader: either in the form of *one* or *more* dollars, or by returning the periodical to this office.

ITEMS FOR THE SPORTING WORLD.

INDIAN RACE.— *Snow-Shoe Races.*— The following particulars occur in the *Pilot:*

1st. An Indian race of four miles, contested for by five Indians, viz: Ignace, Thomas, Moise, Itachka, and Saamasee. Won by Thomas.

2d. Hurdle race — 200 yards, over four hurdles, for a purse of $15. Competitors, Mr. Murray, Mr. Whitehead, and Mr. Reateau. Won by Mr. Murray.

3d. Boys half mile race. Won by Master Murray.

4th. Mile race for $15, contested for by Indians Sacsalia, Thomas Racecus, Itachka, and Mr. Murray. Won by the latter with ease.

5th. Mile walk for $12 or a cup. Mr. Hughes, Mr. H. H. Lamontague, Mr. S. S. Macauley; and Indians Ithacka and Moise. Mr Hughes took the lead soon after starting, and came in winner, but closely pressed by Mr. Macauley. One of the red competitors objected to the decision given. Mr. Hughes at once consented to again walk against the Indian, the result of which was that the red man was left nowhere.

6th. Race of 100 yards by Messrs. Whitehead, Murray, Francois, Perrie, and Ithacka, Mr. Murray again carrying off the prize.

7th. A well-contested race of two miles by Messrs. Dowd, W. Brown, H. H. Reitoul, and J. J. Brown. Towards the close Mr. Dowd left his competitors far behind and came in winner.

The members of the club closed their day's sport by a dinner at Doky's; but our time will not permit us to give the proceedings.

A trotting match for $500 is to come off on Long Island, April 16th, three mile heats, between "Kemble Jackson" and "Atlantic Maid."

AMERICAN TROTTERS IN FRANCE.— The Paris correspondent of the *N. Y. Daily Times* chronicles the arrival in the French metropolis of eight magnificent trotting horses, which have been imported there by our talented friend, Mr. Charles Astor Bristed. Moreover, says the *Times* correspondent, the Emperor has now in his stables six very fine American horses, some of which were selected from the

earlier importations made in that quarter by Mr. Bristed. The horses, two of which the Emperor is most fond of driving himself, are American trotting horses. Who says that the star of the trotting horse is not rising fast?

The "Young Morrill," a promising stallion, has just been disposed of for the sum of $4500.

CALIFORNIA SPORTING NEWS.

GREAT TROT IN SAN FRANCISCO!

Match of Ten Miles for $2,000!

BETWEEN B. G. NEW YORK AND G. S. GENERAL TAYLOR.

(*The former to Wagon, the latter to Sulky.*)

FRIDAY, 6th Feb.—The race over the Pioneer Course, yesterday, between New York and General Taylor, was one of the most exciting, as it progressed, and in its result, of any we have seen in the State. As we predicted, there was a very large attendance of the friends of the turf, embracing many gentlemen from other parts of the State. It is seldom, if ever, we have witnessed so large and respectable an assemblage on a Course as that of yesterday, which will give our distant readers some idea of the interest felt in the result in this community. The day was every thing that could be desired for a race-day, being cool and clear, with but little wind stirring. The track was in splendid condition, and every thing favorable for the sport.

This match was made before the race between Honest John and General Taylor took place last month, and the apparent ease with which Honest John gained his victory made the friends of New York doubly sure of winning this. In consequence, heavy odds were laid on New York, and many bets were made on the track before the start of $100 to $40, and even down to $20 on him! The bulk of the betting, however, had been done previously, and the offers were generally for small sums.

The horses were promptly on the ground and ready to score at the first call—both looking in fine condition, although it was said New York was not. They got the word at the second attempt, Taylor two or three lengths ahead, and in attempting to get it from him on the first turn, New York went up and behaved quite badly to the back stretch, the quarter being made in 45 seconds. Down the back stretch New York began to draw on the gray, and turned into the home stretch a leader, coming to the score in 2: 54. From this, out to the seventh mile, New York maintained his lead, usually crossing the score from three to five lengths ahead. But the four wheels began to tell on him, and those who knew him best predicted trouble. He would get to hitching, and dropping his head, in spite of the admirable driving of George Ferguson, and he showed every symptom of being tired, while Taylor continued his square, even gait, apparently not the least worried. Things began to change in their aspect, and those who had invested so liberally on New York were ready to hedge. But it was too late—the Taylorites had too good a thing of it. At the close of the ninth mile New York was two lengths ahead as they crossed the score, and evidently "done up"—Taylor following as steadily as ever. In the efforts to rally him he went every kind of gait, until going down the back stretch Taylor stepped alongside, when he broke into a run, and, by keeping it up most of the way round, succeeded in crossing the score ahead by two lengths—Gen. Taylor never having made a skip in the two last miles. The shout that went up was perfectly terrific, and even the friends of New York expressed their admiration of the beautiful little gray. After a short consultation the judges awarded the

race and money to Gen. Taylor. Time: twenty-nine minutes and forty-one and a half seconds.

SUMMARY.

PIONEER COURSE, Friday, Feb. 6th, 1857.—Match for $2,000; $1,000 a side' rain or shine, play or pay; for ten miles. New York to go to wagon, and Gen' Taylor as he pleases.

J. M. Daniel's g. s. *Gen. Taylor* (to sulky)..... 1
G. N. Ferguson's b. g. *New York* (to wagon)..... 2

TIME.

	HALF.	MILE.	TOTAL.
1st	1:25	2:54	
2d	1:27	2:51	5:45
3d	1:26	3:00	8:45
4th	1:27	2:57½	11:42½
5th	1:27	2:58½	14:41
6th	1:26	2:55	17:36
7th	1:28	3:00	20:36
8th	1:29	2:59½	23:35½
9th	1:27½	3:01½	26:37
10th	1:35	3:04½	29:41½

On comparing the above with the time made by Honest John, on January 6th, we find it is one minute and eight and a half seconds better—Honest John's time being thirty minutes and fifty seconds. *That* performance was claimed as the best ever made to wagon, but it is eclipsed by this. Both drivers deserve great credit for the manner in which they handled their nags; and Mr. Daniels certainly made his training of General Taylor very apparent by the beautiful and easy style in which he went.

We have made considerable inquiry concerning the pedigree of Gen. Taylor, but it appears to be a mystery. He was brought to this State some three years ago from the northern part of the State of New York. He is a very handsome gray stallion, fifteen hands and an inch high, with heavy, flowing mane and tail, and is one of the most beautifully formed stallions we have seen. He is now owned by Mr. Teackle, of this city, who is making active inquiries to ascertain his pedigree.—*S. F. Town Talk.*

MISCELLANEOUS.

☞A hog was lately slaughtered in New York State, which weighed when dressed, 562 pounds.

A small portion of salt should always be mixed with "*cut feed.*"

To prevent mice injuring trees:—Sprinkle a small quantity of chloride of lime around the base of the tree, and renew it occasionally.

One of the attractions at the Wisconsin State Fair was a fight between a bear and a bull.

A PROBLEM FOR DAIRY MAIDS.—If we knew what paper was guilty of the following arithmetical piece of wickedness we should refuse to "exchange" with it—we would:—

"If twenty-seven inches of snow give three inches of water, how much milk will a cow give when fed on ruta-baga turnips? Multiply the flakes of snow by the hairs of the cow's tail; then divide the product by a turnip; add a pound of chalk, and the sum will be the answer."—*True Flag.*

The sausage makers are "in luck." Five thousand of the canine species were destroyed, lately, in New York.

A FIFTY DOLLAR HORSE.—Mr. Willis, enumerating the qualities of a horse which he paid only fifty dollars for, says:—

"To those who have experienced the mental slavery of owning what is commonly called 'a valuable horse"—too good for anybody's use but his master's, dangerous if his coltish spirits are not kept down by regular exercise, delicately inexperienced in taking care of himself, and 'too much of an investment' to be left, unwatched, to the care of an irresponsible groom — the advantage of a 'fifty-dollar purchase' will be evident."

Among the emigrants which lately arrived in New York, were fifty organ grinders. If some person will invent an invisible syrenge, for the purpose of giving these pests a shower bath, when operating under our window, we will make the individual a present of our hat.

LOG ROLLING EXTRAORDINARY.—Last week a pine log, weighing fourteen tons, was drawn from Bethlehem, N. H., to Littleton depot from whence it was forwarded to Gilford. The event was celebrated by a procession of lumbermen, followed by a long team of horses and oxen. Hundreds gathered to see the show, and the novel affair was closed by a grand oyster supper.

ETHER AS AN ANTIDOTE TO CHLOROFORM.—Considerable attention was excited in Paris,some months since,by the announcement of M. August Fabre, that the inhalation of ether acted as an antidote to the fatal effects of an overdose of chloroform. A committee was appointed by the Academy of Sciences to investigate the matter, and M. Fabre was requested to repeat before the members the experiments on animals by which he pretended to have discovered this valuable property of ether. The result has been that the experiments signally failed to establish M. Fabre's assertion, and the committee concluded that, far from being an antidote to the effects of chloroform, ether tended to prolong, and even to aggravate the dangerous symptoms, caused by the excessive inhalation of that agent.—*Boston Med. and Sur. Journal.*

THE AMERICAN STABLE IN ENGLAND.—We learn it is definitely arranged that the American horses will proceed on the 1st of April next, under the care of their trainer, Mr. D. P. Palmer, to the house and stables recently occupied by Mr. S. Scott, of Houghton Down, near Stockbridge, which have been hired for a period of six months only, and where they will be trained for their engagements.—*Spirit of the Times.*

OIL OF MUSTARD IN RHEUMATISM.—Where one-third of the male population complain, to some extent, of rheumatic pains, in the fickle climate of New England, but more especially along the sea shores, physicians have it in their power to mitigate an immense amount of severe suffering by prescribing the volatile oil of mustard. It is employed as rubefacient, being first diluted in its own weight of alchohol at forty degrees. Some patients may object to its pungent odor; but that is temporary, while the remedy may in some cases prove a permanent cure. Make the application at least twice a day, and protect the part with soft flannel. Mustard mills are in operation in the cities generally, at which the oil may be procured, it being an article not much in demand in the arts. Were it not for detecting it by a pungent odor, this oil would have become a secret remedy for rheumatic pains years ago. A nostrum loses miraculous efficiency and curative powers on becoming known.—*Medical World.*

SUDDEN DEATH OF DR. S. TROWBRIDGE CHAMPNEY, FROM A DISSECTION WOUND.—Dr. Champney died at his residence, on Court street, Brooklyn, Friday morning, says the *N. Y. Times* of Saturday, 28th ult., from poison received while making a *post-mortem* examination. On Monday last, at the request of Coroner Redding, deceased assisted in the *post-mortem* examination of the body of John Elder, who was alleged to have died of violence at the hands of garroters. While engaged at this he pricked the second finger of the left hand, and, notwithstanding every exertion to prevent a fatal result, he died, after suffering the most intense agony. Deceased was 27 years of age, and had prepared himself for the successful practice of his profession by extensive travel, and by practice in different hospitals.

We clip this from the *Boston Medical and Surgical Journal.*

When an act passed in Paris that no dog should go at large without a muzzle, a man was brought up for infringing. In defence, he alleged that his dog had a muzzle.

"How is that?" quoth the justice.

"Oh," said the defendant, "the act does not say whether it should be the dog's own muzzle or a leather muzzle."

WOOL GROWING IN THE SOUTH—A gentleman who has been engaged in the wool growing business in Tennessee, and who has recently traversed Northern Alabama, informs the Mobile *Tribune* that the raising of sheep in that State would be more profitable than the culture of cotton. Thousands of acres, fit for nothing else but sheep pastures, could be had for 12½ cents per acre.

The reader's attention is called to some new advertisements, which will be found in our advertising columns, this month. It will be seen that the services of some valuable "stock" horses can be secured at reasonable rates.

ANSWERS TO CORRESPONDENTS.

Answer to letter from J. T. Tillinghast.—It is impossible to form anything like a correct idea of the character of the diseases you write about, unless we are put in possession of the principal symptoms that prevailed in each case; not only this, but we must be made acquainted with the changes that occurred during the progress of the disease, &c., &c., in short, we should want a complete history of the several cases, written by some medical man who had examined the animals at various times. You allude to one of the horses, as being "*down with symptoms of bots.*" The once popular belief that the *bots* cause a horse to lie down in agony is now exploded: consequently we have no opinion to offer in this case, other than to *suggest* that the animal may have died of colic.

As you suggest there may be a form of periodical disease raging among the horses in your vicinity, but as regards its precise character, we know nothing until furnished with a carefully prepared diagnosis.

We understand, from Dr. C. M. Wood, that he has written to Dr. Scrutton, now practicing in your vicinity, on the subject of a disease said to prevail there; if any information be elicited, calculated to enlighten the people of your city and yourself, it will be communicated.

The best way to disinfect a stable is to brush it all over (with a white-wash brush) with a solution of sulphate of iron: one pound of the latter to two gallons of water, well dissolved. A few days after applying this mixture, white wash the stalls, walls, and ceiling, adding a small quantity of pulverized sulphate of iron to the white-wash. There are many other disinfectants, but this mineral is cheap, and probably as good as some others.

J. C. Walton, Bunker Hill, Ill.—Hysteritis or inflammation of the womb, is often the sequence of difficult and protracted labor, abortion, retention of the placenta and fœtal envelopes. Mares most subject to this affection are generally plethoric; this indicates that the mare, in the advanced stage of pregnancy, should be kept on light diet; in view of preventing a tendency which exists in some mares, to accumulate fat. Hysteritis generally occurs a few days after parturition. The disease may confine itself to the uterus, but often the peritoneal tunic of the same is involved, also the fallopian tubes and ovaria; this, of course, augments the disease, and recovery under such circumstances is extremely doubtful.

In regard to *contagion* or *infection*, it never prevails like puerperal fever as an epizotic, but is often mistaken for the same.

The treatment is a matter for grave consideration, and we cannot undertake to *post* you, without occupying too much space, and thus crowding out other matter

of more importance to the majority of our readers, but will briefly inform you that hysteritis occurring in a plethoric subject, must be treated antiphlogistically; in a diverse condition tonics and stimulants are indicated, with such other adjuncts as the nature of the case seems to indicate.

The term, "*colt founder*," to which you allude, is beyond our comprehension. Founder implies a ruined condition of a part or the whole animal mechanism.

J. S. C.—You can obtain the "recently invented ladies' saddle of H. Adams New York city, it is the best of the kind ever invented.

D. J.—The fastest mile ever made in trotting was by Flora Temple, in harness, in 2:24 1-2.

EDITOR'S DRAWER.

We have received in exchange *The Masonic Journal*, devoted to the interests of Freemasonry, edited and published by G. W. Chase, Brunswick, Me. Price fifty cents per annum. As a true *craftsman*, and on the special merits of the publication, we invite our *fraternal* brethren to support this valuable periodical.

One of our subscribers informs us that his Journal does not come regular. We are sorry for it. It is no fault of the publisher. Every paying subscriber is sure to have his Journal *mailed* from this office every month. If it fail to reach him, "Uncle Sam," or some of his subordinates are at fault, (accidents excepted.) The publisher will be glad to supply all deficient numbers. Therefore, in order to secure them, he must be notified.

We have received in exchange the *Spirit of the Times*, a chronicler of the turf, agriculture, field sports, literature and the stage, published by John Richards, No. 233 Broadway, N. Y., edited by Edward E. Jones. Price $5,00 per annum. A remittance of $5.00 will entitle a subscriber to three steel engravings, and the paper for one year. This paper is conducted with signal ability, and we heartily recommend it to the sporting world.

PLATE OF THE MOUTH OF THE HORSE.—The magnificent plate of the horse's mouth executed on stone by one of our most distinguished artists, will be ready for delivery in the course of a few days. A very attractive feature to be found in this plate is, a correct representation of the mouth of Black Hawk, showing both upper and lower jaws, drawn with anatomical accuracy from nature. Price $1,00, or nine dollars per dozen. Any enterprising man can make a good living by retailing this plate, which every *horseman* needs, and will not hesitate to purchase.

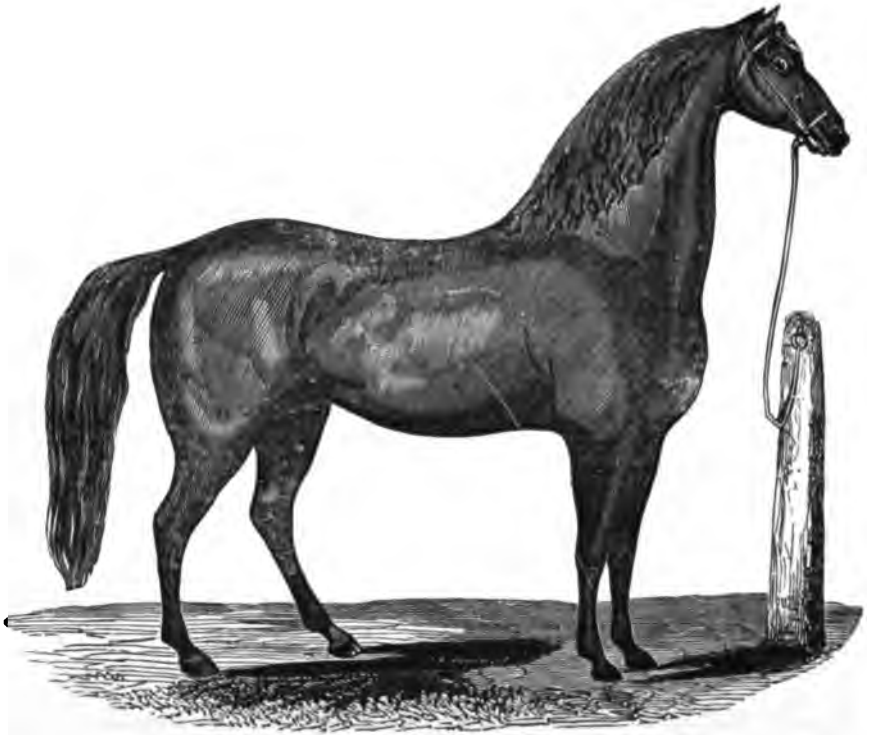
It can be obtained of either the Editor or Publisher, Boston, Mass. Four dollars will entitle any one to a copy of the same, and four copies of this Journal.

Accompanying *Porter's Spirit of the Times* we have received a lithograph of "Flora Temple." If our memory serves us, the form and outlines of this valuable mare are truthfully delineated. The coloring might be improved, but as it is a free gift, all should be content. We have noticed that it is for sale in this city, price 12½ cents. This is contrary to the intention of Mr. Porter, whom we understand got it up specifically as a *free gift* to the readers of *Porter's Spirit*. Subscribers failing to receive it had better notify Mr. Porter.

ACKNOWLEDGEMENTS.—We have received from Charles L. Flint, A. M., Secretary Mass. Board of Agriculture, a copy of his "Practical Treatise on Grasses and Forage, Plants," which came too late for notice in this number. We shall endeavor to notice it as its merits deserve in our next.

To Dr. J. D. Jewett, of Palmyra, Maine, we are indebted for a pair of turkeys and also a pair of chickens. The man who sends an *Editor* such a present as this has a heart as large as that of a whale. Long life to Dr. Jewett.

Our thanks are due to Dr. Moore, of Salem street, Boston, for a package of Podophylline. This article is a *first-rate* cathartic in the human family, and we intend to test its effects on the *horse*, and report accordingly.



HAMMOND MORGAN.

OWNED BY S. N. THOMPSON & CO., now standing at SACO, MAINE. (See Advertisement.

THE AMERICAN

Veterinary Journal.

DEVOTED TO THE DIFFUSION OF VETERINARY KNOWLEDGE.

Edited by GEORGE H. DADD, Veterinary Surgeon.

Published by S. N. THOMPSON & Co., 97 Union Street.

PRICE, ONE DOLLAR PER ANNUM.

VOL. II. BOSTON, MASS., MAY, 1857. NO. 5.

VENTILATION.—COMPOSITION OF THE ATMOSPHERE—OXYGEN, NITROGEN, AND CARBONIC ACID GAS.

A pure atmosphere is "the breath of life."—The subject of ventilation, we contend, has never received that attention which its importance to the well-being of man, and the welfare of the inferior orders of creation demands; in fact, everybody professes to be somewhat acquainted with the wants of the animal economy, as regards rest, *food*, and *fluids;* but, in reference to the necessary amount of *aerial* food needed — "the breath of life," — very few have given the subject more than a passing thought. A pure and uncontaminated atmosphere is absolutely necessary for *physiological* respiration; any deviation from purity (whether the man, or animal, be diseased or not,) places them within the valley of the shadow of death, or rather, operates directly or indirectly to induce disease. A horse can submit to a deprivation of both food and water for many days, without one sixteenth part of the danger encountered when breathing, for a few hours only, a contaminated atmosphere, such as generally pervades our stables and cow-houses, where the principles of ventilation and cleanliness are almost entirely disregarded.

The object of ventilation is to secure a current of pure air, by which means the *vitiated* is replaced, and a constant supply of the *pure* material is kept up; this neutralises the morbid effects which generally result from re-respiration of a local atmosphere.

In view of familiarising that portion of our readers who have never interested themselves in this subject, we propose first, to show what constitutes a pure atmosphere, and of what it consists.

Pure air is that immense mass of permanently elastic fluid which surrounds the earth. It is capable of varying its dimensions under the influence of either heat or frigidity; heat expands or rarifies it, and cold contracts and condenses it. It is transparent, so as to be invisible, except by the blue color it reflects, when in very large bulk, as seen in the region above. It is without odor, except that of electricity, which it very frequently manifests, and, like other gases, it is capable of holding in solution, or receiving, an admixture of vapor. For example, it absorbs water in considerable quantities, without decrease of its own specific gravity; it is supposed, however, that the air suspends vapor, not really by *absorption*, but by separating its particles, and thus preventing their condensation.

Pure air, almost always, contains vapor; for the rain and dew, which attract our attention, as well as the clouds and fogs, all deposit moisture, and even when the atmosphere appears perfectly transparent, water can be extracted from it. The usual process of demonstration is as follows: — Take one ounce of sulphuric acid, (which has an extraordinary affinity for water, more than any other acid,) and expose it in a shallow vessel, subject to the free action of pure air, and in a short time it is converted into a *dilute* acid; its weight having increased in the ratio of one hundred per cent. The vapor, or water, thus absorbed, can again be separated by distillation, showing conclusively that watery vapor is always present in pure air. Everybody knows that iron and steel, when exposed to the atmosphere, will corrode; that lime will slake; salt and sugar will imbibe moisture; consequently the theory needs no further illustration. Water seems to be almost as essential for the purposes of respiration as for that of nutrition; and when we realize the fact, that the animal frame is composed of 75 per cent. of water; that three-fourths of the wondrous and complicated mechanism of man and his congeneric flocks and herds is composed of the "dew drops;" that the vital current which courses the arteries of each, and gives vitality, health and beauty to the animal mechanism, is in the same ratio, we must come to the conclusion that water plays a very essential part in the animal economy, both as regards respiration and nutrition.

Chemistry has demonstrated that *pure* air, which we contend is absolutely necessary for the purpose of *physiological* respiration, is not composed of a single element, as some suppose, but is a unity of three gases, termed oxygen, nitrogen, and carbonic acid. These unite in the following equivalents: — Oxygen, 21 per cent.; nitrogen, 75 per cent.; carbonic acid, one per cent. These equivalents

are *persistent;* they never unite in any other form; hence we know, from inductive evidence, that the elementary basis of a pure atmosphere rests on the above proposition, so that the elementary constituents of pure air are the same all over the world.

Oxygen.—This gas does not exist in a free state, but in combination, it is universally dispersed throughout nature. It unites with light and heat, as well as air, and to bodies in a state of combustion, and so intense is its own caloric power, that if it could be set free throughout nature, a universal conflagration might be expected; the hardest rocks would crumble to dust, and even the diamond, considered as indestructible, would melt as with "fervent heat." This gas has neither taste nor odor, and like common air is capable of indefinite expansion and compression. It is indispensable to respiration, and generates *animal* heat.

The estimated weight of oxygen respired by a healthy man in 24 hours, is 2 1-4 pounds. This, in a gaseous state, occupies a volume of 48,000 cubic inches. It unites with the carbon of the blood, and in the course of 24 hours, liberates from the lungs 48,000 cubic inches of carbonic acid gas.

Having briefly alluded to the use and properties of oxygen, *nitrogen* next engages our attention.

Nitrogen.—This gas possesses all the physical properties of common air. It is distinguished for its repugnance to enter into chemical combinations. Its principal use seems to be, to neutralize the effect which might result from the action of pure oxygen on the animal tissues. It is a non-supporter of vitality, yet there appears to be a continual absorption of it by the blood. In fact, the blood, and all the organized tissues contain about 17 per cent. of nitrogen.

Carbonic Acid Gas.—This gas is supposed to possess greater density than common air, and therefore is generally found to occupy a space next the earth, or floors of unventilated stables and dwelling houses, or such situations as contain the materials, which generate it by decomposition. The *miners* have given it the name of "choke damp." It is often present in the stomach and intestines of animals, generated by putrefaction, and often causes death by distension. It is an invisible fluid, of pungent odor.

(*To be Continued.*)

THE FASTEST TIME BY HORSE FLESH.—Porter's Spirit says:—"The fastest time ever made by a running horse was by Henry Perit, in 1.42 1-2; and the fastest mile made by a pacer was by Pocahontas, in 2.17 1-2; and the fastest mile ever made in trotting was by Flora Temple, in harness, in 2.24 1-2."

WEIGHT OF THE BODY AND VISCERA OF AN ELEPHANT.

In 1855, the Zoological Society of London lost a very valuable female elephant. Her death was supposed to have been occasioned from fright, or electrical influence, during a thunder storm. Mr. Bartlett, who prepared and articulated the skeleton of a male elephant which has attracted considerable attention from the visitors to the Crystal Palace, London, had the body of this female weighed, and the result is as follows:—

Skin,	683 lbs.
Flesh and bones,	3642 "
Supposed loss,	200 "
	4525 "

The viscera were weighed with steelyards, and adding the weight of the viscera to the above, the total amount is about 5225 pounds. The under mentioned are the proportions:—

Heart, 25 lbs. $\frac{1}{227}$.
Lungs, very much congested, 107 lbs. $\frac{1}{48}$.
Liver, 50 lbs. $\frac{1}{104}$.
Spleen, 9 lbs. $\frac{1}{580}$.
Kidney, 8 lbs. $\frac{1}{653}$.

Alimentary Canal—	Œsophagus about	6 feet.
	Stomach	3 "
	Small intestines	74 "
	Cæcum	5 "
	Other large intestines	35 "
		123 "

The average weight of the adult elephant's brain is eleven and a half pounds.

A HORSE WITH A CORK LEG.—We take the following from the Adelaide (Australia) Register:—" We have recently seen Mr. Collin's mare, Jewess. It will be remembered that she broke her near fore-leg on the race-course in April last, while running for the town plate. Amputation was performed by Mr. Crabb, under whose care she has completely recovered, and is expected to throw a foal to Swordsman in about six weeks. Her condition is excellent, and the cork foot seems to answer its purpose admirably.—*Ohio Farmer*

TROTTING AT AGRICULTURAL FAIRS.

Quite a spicy discussion has of late been going on through the pages of our agricultural exchanges, on the above subject. We have already committed this Journal as a supporter of a very interesting feature of agricultural exhibitions which we term "trials of speed," or "horse racing," as some term it. We cannot for the life of us see anything wicked in testing the speed and endurance of a good horse; and we were just cogitating on the subject in order to furnish an article in view of giving countenance to its regular introduction at agricultural fairs, when our eye happened to light on the following article in the New England Farmer, which comes right to the point; and we here give our readers the benefit of it and endorse its sentiments:—

MR. EDITOR:—The discussion of this topic has become quite animated among our agricultural journals, and even the political and literary press seems to manifest an interest in the controversy.

Having become somewhat interested from reading the articles that have appeared in the N. E. Farmer, and occasionally from other sources, I submit a few remarks for your consideration, although they may differ slightly from your own opinion, or that of a majority of your correspondents, who seem to have an undue repugnance to all "trials of speed," which they denounce as horse-racing, and look upon its introduction as a bomb thrown in by an enemy, which will soon burst and carry destruction to all our fairs and cattle shows.

There are others, at the other extreme, who consider it the only attractive feature, and therefore advocate it to its full extent. Having bestowed some thought upon it, I am led to the conclusion that neither the abolition nor special favoritism will satisfy the patrons of our fairs, but that there is intermediate ground upon which the two extremes may meet with success.

I think it is not the wish of the majority that the horse, the noblest animal of the brute creation, should be excluded from our cattle shows and fairs. Two or three years ago it was a matter of public regret that farmers and owners of fine horses did not contribute more liberally to this department of the exhibition, and efforts were made to bring out a more extensive show of our fine horses. I think you were sensible of this, for by turning to the issue of Nov. 4, 1854, I find the following:—

'Why is so little attention paid to horses by our agricultural societies? and why are so few seen at our cattle shows, while the horse is selling in the market at a higher price than any other animal? We seldom see more than half a dozen horses at any of our

shows, and frequently there is not one on exhibition. This shows a deficiency somewhere. Either sufficient encouragement is not given for good horses, or there are but few animals worthy of being shown for premium.'

It being desirable then that the horse should be on exhibition, the question arises, How shall he be exhibited so as to do justice to himself, his owner, and the society for whose benefit he is introduced?

The owner of a fine animal claims the highest premium in his class, but the claim is of no avail. The committee must award according to their own judgment, and no committee ought to award a premium on a horse without examining him in all the prominent characteristics which go to make up his value, and among them must be classed speed.

This should be done under the supervision of the committee, and for this purpose only. A single mile would be sufficient, unless the competition be very sharp. I think, therefore, no premiums should be offered, which would have the effect to exclude the best horses, unless there can be a properly conducted trial of speed.

One objection is, that it engenders betting, but I think not as a matter of course. True, it may be made the subject of betting, and so may many other things connected with every exhibition of the kind. A man may bet that his oxen will draw a hundred pounds more than B's; or that his cow will yield more milk in a given time than any other on exhibition; or that his swine will weigh more than C's, and so on through the whole catalogue. But if betting should occur among some few, (although I should hope it might not, for I discountenance it,) ought the society to be held answerable for it? I think not, and the objection is not sufficient to exclude him.

I have been looking for some plan which your correspondents, who are so bitterly opposed to trotting horses, should propose, which would do away with the objectionable features, and secure the valuable; but while they are so ready to publish their condemnation of the practice, they offer no plan as a remedy, unless it be implied that they would have all trotting abolished. Such a course I should deem unwise. Old men and young, matrons and maidens, do like to see the light and nimble steps of a beautiful trotting horse. They come from the farm and the shop, where they have toiled through the heat of summer, to enjoy a gala-day, and they find a healthy and satisfactory recreation in a well-conducted agricultural exhibition, and they return to their farms and merchandize to await with interest the return of their State and County festival. To exclude the excitement of the exhibition of horses would be to rob it of one of its most attractive features, and would

also have a decided tendency to multiply horse shows where there is nothing but trotting, and betting, and, I may add, a good deal of profanity. Our youth would find their way there, and instead of witnessing a fair and orderly trial of speed under the care of parents or guardians, whose presence and dignity would serve as a wholesome restraint, they would see more of the brute in man and less of the "poetry of motion" in the horse. Would it not therefore be far better to seek to control this amusement which thus far has been fostered by nearly all our agricultural societies, and consequently will continue, for a time at least, rather than disown, and cast it off to assume a more reckless, exclusive and objectionable form?

Some have thought it unmerciful, and as "a merciful man is merciful to his beast," it should be looked upon as a violation of this scriptural precept. I have visited several fairs this season, and there has been trotting at each, also plowing and drawing matches, and I have seen no trotting that appeared so "unmerciful" as compelling a pair of oxen under the free use of the lash to try, and try, and try again, to drag a ponderous stone that would require the united strength of two yoke, or goading a pair of cattle to perform a piece of plowing in twenty minutes, that would require thirty or thirty-five. It is not an easy matter to decide where the competition shall begin and where end. In fact the whole exhibition is one of competition, and was established for the commendable purpose of "provoking one another to good works," and if our exhibitions are left in the hands of competent men — men of dignity and moral character, I do not apprehend that an avalanche of immorality will roll down upon us at a 2:40 *speed* that will crush all our hopes in the good our annual fairs are so well calculated to impart.

V. C. G.

VENTILATION.—On Wednesday evening last a friend of ours (says the Tribune) accepted an invitation to attend a monthly meeting of the "New York Academy of Medicine." He was somewhat surprised to find about one hundred and forty *doctors*, confined in a room some 30x40 feet, and almost air-tight, and the air so impure for want of proper ventilation as to produce a very unpleasant feeling about the chest. He would suggest to the disciples of Esculapius that a very proper subject for discussion at their next meeting would be the ventilation of all public and private buildings, and the importance of pure air to animal health.

STARTING AND SHYING HORSES.

Persons frequently place these failings in the same category; but there is a wide distance between the two, and they are frequently the result of widely different causes. They are both annoying to the rider, and, if carried to a great extent, are often attended with considerable danger to man or horse, or perhaps both — the danger being more or less in accordance with the situations in which both happen to be. For instance, a horse shying in the country matters little; it is, in fact, a mere deviation from the straight line in which he was going; but in London this deviation may possibly bring horse and rider in contact with an omnibus, or one of Pickford's vans. Horses on first being brought to London are very apt to shy, but not to start, and for this reason: they meet or pass many things to which they have not been accustomed; they fear, and consequently avoid close contact with them, by shying out of the way. The human passenger will pass horses, dogs, sheep, or cattle, in most cases, without alarm or avoidance: he has seen such from his childhood. But let him or her meet a camel coming, the wayfarer will probably, like the horse, shy away from it. It matters not whether it be an omnibus or a camel, if, from being unaccustomed to meet, either bipeds or quadrupeds feel them as objects of alarm.

I have some lines back remarked that on horses first coming from the country to London they are apt to shy, but not to start. It will be found to be usually the case. The fact is, the shying prevents their starting. Their attention is so occupied by a continuity of objects, at which they shy, that they do not come on any one, as it were, by surprise. If they did, they would start. Starting is usually the result of surprise; shying, that of fear.

Now, on the contrary, horses in the country will more frequently start than shy, from there being by far fewer objects to shy from; and, again, their attention not being engaged, a bird flying from a hedge, a wheelbarrow in a ditch, or a man's hat by the side of, or in the road, will frequently cause a start; but this said hat on the London pavement would probably escape their notice, if that notice was occupied by a coming carriage. Even a London horse, who will after a time walk the streets without either shying or starting, would very probably, if ridden upon Rottenrow, start at a dropped handkerchief, if it lay in his path. He sees but the one object; it surprises him, and he consequently, probably, starts at it.

I have endeavored to show the causes of starting and shying, also the difference between the two acts. They arise from his seeing objects that surprise or alarm; but there is a far worse cause

for some horses doing either, which is frequently from their not seeing them clearly. There are far more horses going about London streets with defective eyes "than is dreampt of in our philosophy."

An acquaintance of mine, with whom I was riding, was mounted on a very clever cob; he both started and shied, two or three times. His master, who was an irritable man, laid an ash stick very severely about the cob's ears, saying, with an oath, "I will give you something else to think of than shying." The poor cob shook his ears at this infliction of severe punishment. Now, I had before this, from seeing him so frequently start and shy from slight causes, and from the peculiar motion of his ears, had my suspicions. "Stop," said I; "allow me to look at your cob's eyes." I did so; and, figuratively speaking, found him to be in technical phrase "as blind as a bat." He certainly would not run against a cab, and could find his way into a stable door; but his sight was so far defective that most things appeared to him probably as what they were not; and as no man can tell what they did appear, it is little wonder the poor brute started.

I hope this true anecdote will act as a hint to my friends and readers. There are many persons who have slightly defective sight, without being aware of it. Depend upon it, many horses have very defective eyes, without their owners suspecting anything of the kind. I would recommend to every one who has a horse that shies, if he does so at objects not calculated to cause alarm, to have him examined by a veterinary surgeon. He will then either learn the worst, or, if the shying does not proceed from defective vision, he may then take measures to cure him of an objectionable habit, with a fair prospect of success.

I have not the smallest doubt but that horses are affected like human beings, with sundry variations of vision. I consider the two that are most common are confused and deceptive sight, and short sight. As we can neither ask questions of the animal, nor apply glasses to his eyes to ascertain what kind of defect he labors under, we can only be guided by his acts. Inflammation or weakness of the eyes is easily seen, so are cataract specks on the eye, and many other ailments; but a horse may and frequently has very imperfect vision, without any of these apparent causes. We will suppose that it is with a horse thus situated we have at present to do, and I will, to the best of my ability or experience, state by what symptoms, or rather by what acts, we may generally judge of the state of his vision, which to any one but a scientific professional man, may appear from superficial examination to be perfectly good.

If in going along a road we were met by a led bear with a monkey on his back, or a man seated on a velocipede, we found our

horse astonished, and then shying or starting from the approach of either, we need not be surprised at his doing so; but if we merely met a man driving a calf before him, and the horse showed evident symptoms of astonishment and alarm, I should strongly suspect there existed something defective in his sight that occasioned his alarm at the appearance of such a common object. I do not mean we are to come to this conclusion at once by his doing so; but if he continually shied from objects he must often have met with, or, at least, similar ones, the inference I should draw would be that imperfect vision disabled him from seeing what the object was, or that it appeared to him a something that it was not. Such horse may see his way along a road well enough, and quite answer the purpose of a road horse; but where the man who would ride him at a fence, for then the secret would out.

I have no doubt many of my readers have found a horse or seen one, in technical term, "buck" on coming to a (say) large white stone on the road, without its appearing to have attracted his attention until close upon it. I have no hesitation in giving an opinion that a horse in the habit of doing this is near-sighted. If, on the contrary, he cocked his ears and raised his head on seeing the stone at a distance, I should infer his sight was confused, and that the stone was magnified to his view, or appeared what it was not; but the sudden start on seeing it, as it were, under his feet, clearly shows he had not seen it till close on it; then he starts, often producing an almost electric shock to the rider. I have seen a horse thus start so suddenly and violently, as almost to bring himself on his nose. Depend on it, no horse will do this, but under the influence of defective vision.

The attempt to cure a failing the result of an infirmity, must prove abortive, unless we could cure or palliate the original cause of it. The treatment of horses that start or shy from habit only, will probably form the subject of another article.—*Harry Hieover, in the London Field.*

INSTINCT OF THE HORSE.—A letter recently received by a gentleman in Derby, from a relation in Australia, says:—"My dog Keeper, (a Scotch deerhound) died from want of water. It was a dreadful day. I had ridden on horseback a journey of 70 miles over the plains. My horse and I were nearly worn out, when suddenly he pricked his ears, neighed, and became so restive I could hardly manage him. I gave him his head, when he sprang into a canter, and in about a mile I had the welcome sight of water."—*Derby Mercury.*

SUCCESSFUL OPERATION FOR VENTRAL HERNIA.

BY R. H. DYER, M. R. C. V. S., WATERFORD.

I BELIEVE it has often been said, that to speak with certainty of the success of an operation, it is at all times necessary to produce a large number of cases. Ventral hernia has frequently been commented upon in your pages, and in almost every case an operation for its reduction has proved successful. Having recently contrived to "pull through" a case, I hasten to give it to you.

A bay filly, two years old, the property of Wellesley Prendergast, Esq., residing at Listerlin, in the county of Wexford, some time since received an injury on the side of the abdomen, about six inches in front of the patella, and close to the cartilages of the hindermost ribs, by which a laceration of the muscles was produced, leading to hernia of the intestines. She was placed under the care of a veterinary surgeon, who was prompted to apply a sticking plaster to the hernial swelling, for the purpose of reducing it. After the lapse of fourteen days he wrote to the owner of the animal, stating that the case was incurable, and that he wished him to send for the filly. Mr. Prendergast, not being exactly satisfied, sent the filly back to Waterford, and directed the steward in charge of her to inquire "at Ion's" if there was any probability of a cure being effected. In my reply, I stated that I thought the hernia could be reduced by an operation. This being decided upon, on the 8th of March, after having prepared the filly, I cast and secured her in the usual manner. I then made an opening of about six inches in length through the integument, down upon the peritoneum, which membrane I next cut through, as, without its division, I could not employ my sutures with the same amount of safety. I found the edges of the torn muscles very much attenuated, but, as stated, the serous membrane was entire. I placed four sutures in the deep-seated muscles, leaving their free ends six inches long. I then proceeded in the same way with the panniculus carnosus and common integument, placing in them six stitches, to effect the closure of the opening. All being finished, the animal was permitted to rise. In about an hour afterwards she suffered much pain; this was relieved, however, by an anodyne draught. Subsequently a mild aperient was given, and bran mash allowed. On the 9th and following days, the subcutaneous cellular tissue of the abdomen was filled with serous exudation, which extended as far forward as the neck. The case however went on well, good nursing being the principal thing required. After the sutures gave way, granulation proceeded satisfactorily, and I think I may now pronounce the animal as being perfectly cured. — *London Veterinarian.*

THE HORSE.

As the present high price of horses will induce all who can to raise and bring them into market, it is but reasonable to suppose that many mares will be used for breeding, whose progeny will prove of very little value. In the present instance I propose to consider something of the results to be expected from a judicious course of breeding, and vice versa. In the selection of a stallion to breed to, inasmuch as nearly every one is within reach of a good many, most persons are called upon to exercise some judgment in making a choice, and in order that the choice may prove a wise one, see to it that you consider well the object in view, viz: What kind of a colt do you wish to produce? Consider the qualities of your mare and also the horse, and after all do not breed to the price of the insurance instead of breeding to the horse. A dollar or two now may make a difference of fifty or more a year or two hence. In order to a perfect development in the foal, the mare should be relatively larger than the horse. A large, loose made mare, from a smaller but muscular and ambitious horse will rarely fail in producing a valuable colt. The mare being large and roomy, there is ample space for developing in the fœtus the full powers of the horse in an eminent degree, giving it remarkable strength, activity, and constitution. The correctness of this principle will be readily seen in the effects produced by this course of breeding. Doubtless every reader can point to a number of small horses, (Canadians and others,) which have sustained a high reputation amongst stock raisers throughout their whole lives. The justly famed Morgans, and the advantages to be derived by crossing them upon common stock afford a striking illustration of the truth of this remark. The Mustangs of the western plains, as well as all *wild* horses, are remarkable for their hardihood and bottom. When it is remembered that the medium and smaller sized horses are always masters in a herd, and consequently the race being perpetuated by them, another example is afforded, carrying out the truth of this observation. By crossing the large English mares with the (smaller sized) horses of Arabia and the Barbary States, some of the fleetest horses in the world have been produced. The superior hardihood and endurance of the mule may certainly be attributed in a *great measure* to breeding upon this principle. Jacks being smaller than mares, there is a full development of the powers of both parents in the offspring. Some may say that the jack is a more hardy animal and not subject to so many diseases as the horse, hence the result, but this does not explain the true cause of superiority. If *this* had been the reason, the produce of the stallion with the jennet ought

to be equally as serviceable as the mule, but experience has proved that the offspring which is called a *Hinny* is a worthless animal. Colts produced by crossing small mares with large horses are frequently tall and ill-shaped, awkward and sluggish, also deficient in constitution. Of course there are exceptions, but this is the *natural* tendency. From this fact the improvement of our stock by importing very large horses, has not been attended with such marked results, as has been attained by a different course of breeding. An error has been committed in importing large horses instead of mares, and although a good many valuable horses are to be found among the colts of imported draught horses, there are many others that will not compare favorably with the common breeds of the country. A large breed cannot be kept perfect and condensed by raising from females of smaller size. Either the form, the spirit, or the constitution must be sacrificed, perhaps all. But you are ready to ask, How are we to keep up the size of our horses and practice upon this principle? Many small horses breed large and their colts will, in nearly all cases be large enough. If, however, you have a small mare, I would not advise breeding to a still smaller horse, but after breeding to a larger one, if the colt should prove deficient, correct again by reversing. Perhaps enough has been said upon this subject to lead you to think and observe. If so my object has been attained. Lessons of experience are always readily fixed upon the mind.

Some difference of opinion is entertained as to which exerts the greatest influence upon the offspring, the male or the female. I think, however, that owing to the peculiar treatment and habits of the stallion, a deeper impress is generally made upon the side of the sire than of the dam. Taking this for granted, and also bearing in mind that "like produces like," it is a matter of great importance that the stallion especially be free from defects and blemishes. Spavin, curb, predisposition to splints, windgalls, and all such things are hereditary. All these things are formed easily enough, without breeding to horses which have them. I would, for this reason, always discourage the idea of keeping a horse, unless entirely free from defects. If a horses legs fail, he is useless, and if he inherits spavin or any such diseases, there is little prospect of his ever being permanently cured. Some suppose that if a horse has an eye knocked out, or is otherwise rendered blind by accident or ill-usage, his usefulness as a breeder will not be effected but this idea is erroneous. A healthy action and exercise of any member, muscle or limb, increases its vigor and power. Inactivity produces an opposite result. After the loss of the eye the nerves around that organ becomes paralyzed, and for want of exercise (whatever may have caused the blindness) become to all intents and purposes the

same as if they had never existed, and consequently materially affect the progeny of the animal. Although the effects may not be seen in the first generation they will surely be manifested at a later date by an exhibition of weak eyes, dull and sleepy looking eyes, very small and bad colored eyes, and finally total blindness. Stallions are perhaps more liable to go blind than any other horses. If used as work horses they are very apt to pull too hard. Many horses have been rendered blind from this cause. If saddle horses, by undue exertion in training they are sometimes strained and the eyes lost. If over-taxed during the season the eyes often fail; and again a horse will often be seen looking through some crack in the stable with his eyes fixed intently upon some object for many minutes in succession, thereby straining the eye and resulting finally in loss of sight. If any one of these causes or even accidents may have rendered a horse blind rest assured that the effect will be sooner or later manifested in his stock. Old Copperbottom, during his lifetime, was paced a distance of 90 miles, which he accomplished in less than 9 hours, but this resulted in the loss of his eyes. We find now that his descendants in this State, (Ky.,) as well as many others, are weak-eyed. I know a grandson of his, whose eyes were, to outward appearances, as good as any I ever saw, now entirely blind, and his eyes failing without any apparent cause. It is also a well known fact that the Copperbottoms are addicted to blundering. May not this be attributed in part to some defect in the formation and structure of the eye? If so, this is an important item for consideration. In conclusion upon the subject of defects let me say, if you are raising stock, breed to an animal in all respects free from blemishes, if you are buying stock, purchase such as are free from defects. These things are often produced by causes which you cannot control, and when selling times comes, (especially if the market is dull) you must account for every puff, limp, or hair that is out of place.—*The Valley Farmer.*

High Price for a Jack.—Thomas W. Lewis, Esq., residing on the line of this county, in Clarke, on Saturday last sold his Jack, Moro Castle, 8 years old, 15 hands high, imported by the Mason County Importing Company, for the sum of $5000, to M. W. Mays, of Maury county, Tenn. This is the highest price we have ever known paid for an animal of the kind in these parts. This Jack took the premium at the State Fair here last fall.—*Kentucky Flag.*

For the Veterinary Journal.

MAL-PRESENTATION OF A CALF.

MR. EDITOR:—One week ago a cow of mine that had previously been placed in the lying-in hospital, was found in the morning endeavoring to deliver herself of her calf, with the calf's head projecting out at the "anus" as far as the shoulders, and the fore-feet out at the vagina. In fact, the head had torn its way through the uterus, and rectum, and when found, the cow was lying down, chewing her cud. We immediately obtained help, and cut the head off at the shoulders, and pushed the calf back and gave it its right direction, when the cow immediately delivered herself of the calf and the after-birth. I then washed the parts with a strong decoction of raspberry leaves, and gave her gruel, and a tea-spoonful of powdered blood root, repeating the washing every two or three hours, her drink being gruel for the week, and now the swelling has subsided, she eats well, gives a good quantity of milk, and we call her nearly well. Can you tell me the occasion of the accident? and did you ever see or hear of such a case before?

Yours respectfully,

Hardwick, Vt., March 19, 1857. H. BLAKE.

REMARKS.—Our correspondent must be in error as regards "the calf's head projecting out at the *anus* as far as the shoulders." The case was probably one of laceration of the perineum, (the part between the anus and organs of generation,) for, in our opinion, it is impossible for the fœtus to take this direction; for, allowing rupture of the uterus to have taken place, we cannot see how, or by what means, rupture of the rectum should follow, because either uterine action or mechanical force, one or the other, operating so as to produce rupture of the uterus, could not, by the same means, affect the integrity of the rectum, which allows of considerable distension, and protrusion, ere a rupture could occur. If rupture of the rectum takes place, it is occasioned partly from accumulated fœces, and extraordinary peristaltic muscular action to expel the same. The pressure, however, is diverse from that, which must necessarily occur in the above case; and, granting that a loss of continuity had occurred in the walls of the uterus, the expulsive power of the same would then have been lessened or partly paralyzed, and of course, rupture of the rectum, and anal presentation of the fœtal head and shoulders would then have been almost impossible.

Aside from this, we cannot conceive how the sphincter ani (muscle of the anus) could admit of such extraordinary dilation so as

to allow "*a calf's head and shoulders*" to pass through its calibre without lacerating or producing lesion of its circular fibres. A cow may possibly recover from laceration of the uterus, but laceration of the rectum is almost always fatal. Without any knowledge of the case, other than what we glean from the above paper, we offer these brief suggestions, and should like to have Mr. Blake furnish some collateral testimony, from parties present, sustaining his version of the difficulty; or, on the other hand, if he satisfy us that his knowledge of anatomy would preclude the least possibility of a mistake, then we shall allow the case to pass current as one of the most extraordinary within our knowledge. We shall be glad to hear from Mr. B. on the subject.

RACE OF ONE HUNDRED MILES.

The following summary of this long-winded race appears in the Evening Telegraph, published at Utica, N. Y.:—

"The exciting race between the horses Doctor and Boker, came off yesterday as announced by us on going to press. The excitement among the "fancies" was extreme, and as the horses neared Utica, betting was lively, on the faith of telegraphic despatches constantly being received. It was five o'clock when they reached Utica, and the road swarmed with eager spectators. The horses were both seriously fatigued, and Boker gave out near Yorkville. Doctor made his time and distance. The reader may be curious to see the "time table."

5.01 A. M., left the Exchange, Albany.

9.15 A. M., arrived at Fonda, 44 miles from Albany.

10.25 A. M., at Palatine Bridge, 55 miles.

10.35 A. M., at Fort Plain, 58 miles.

12.17 P. M., Albany horse at Little Falls, 64 miles.

12.19 P. M., N. York horse at Little Falls.

12.56 P. M., Albany horse at Herkimer, 81 miles.

12.58 P. M., New York horse at Herkimer.

1.10 P. M., passed Ilion, 83 miles, the Albany horse about five rods ahead; both going at the rate of nine miles an hour.

Between Frankfort and Schuyler the Albany horse stopped. The New York horse passed, and then lay by two hours, and was nourished and revived. He started again, being fed with hay as he walked; when word was given that the Albany horse was coming up, he pricked up, and at

5 P. M., passed through Utica, 96 miles, the New York horse about four minutes ahead.

5.30 P. M., New York horse reached Whitesboro, 100 miles, in twelve hours and a half.

The horses and drivers are still in town recuperating. Most humane people think the trot was a barbarous act, and few have any sympathy for sore bones or empty purses.

The editor of the above paper also publishes the following letter from the pen of Arthur S. Copeman, veterinary surgeon, whose heart, the reader will perceive, is in the right place:—

"CRUELTY TO ANIMALS.—As we admire good horses, and believe even in 'horses' rights,' we beg space for a few remarks on the one hundred mile race. Every intelligent man must know there are limits to *animal* if not to *mechanical* power; and that it is cruel to trespass on the extreme capabilities of any animal. Since the maximum speed and endurance of the horse has been for every essential purpose clearly ascertained, it is barbarous to repeat these *experiments* especially for the sake of risking money on the event. Unfortunately, however, there are those in society, whose feelings for the horse are bounded only by their own selfish requirements, or by their love of exacting or rather exhausting the energies of their horses to a degree that either disables, or kills outright, or else cripples them for the remainder of their lives. Some will and do object that after all we can say, the brute is but a machine. Little do these *hard drivers*, as they are called, and who glory in the appellation, think of the sufferings of the noble animals that carry them. We object not to him who is foremost on the road; we would not severely censure him if in the ardor of the moment he a little '*over*-marked' his horse: we would place it to the account of that bold and manly character which is natural to all *horsemen;* but there is a point beyond which it is brutal and dastardly to go. The noble beast which loves to 'go ahead' as well as his master, will not say 'enough,' until the powers of nature nearly or utterly fail; and to urge him on by 'shouts and bustle,' is an act of abominable injustice and cruelty, for which no excuse can be urged. We are induced to speak thus freely, having fresh in our memories, after a similar feat, the dying sobs and groans of as noble an animal as ever trod the earth, the blood flowing from his nostrils and the mouth of the fallen and heart-broken animal. What a spectacle to be coupled with pleasure and exultation! These exhibitions cannot be too severely reprobated. They have no kin to straight-forward honest sporting: they are only advantageous to heartless, selfish, cruel men. The Author of nature never could have intended that the powers of the horse should be so severely, and in such a way taxed. The end ought to justify the means; but there is no legitimate or rational end to be answered by these noble animals being urged at their utmost speed

on all sorts of roads over stones and mud, ice, snow, and water. This is a power which was never delegated to man as yet, and we sincerely hope will forever remain 'unpatronized' by every man of elevated station or character. Several excellent horses have been sacrificed to this brutal diversion, and doubtless many others will be murdered in the same way, until so horrible a practice is put down by the expression of universal detestation.

LOCAL INJURY TO A HORSE.

Dr. Dadd,—Sir: Hoping to add somewhat to the veterinary knowledge of our country, as well as to elicit the opinions of veterinary surgeons, I forward to you the following case:—

Mr. A., living some six miles from this city, owns an excellent high-spirited nine year old horse, (one of a span) which he harnessed with its mate before a loaded wagon to come to this city. In leading him out, however, and while letting down the bars, he sprang over the top bar before it could be lowered, but without seeming to strain him in the least, and with no apparent extraordinary exertion. Being harnessed he sprung forward up quite a bank into the road, taking the whole load and the other horse with him, and so suddenly and with such force as to shift the load, making it necessary to stop some twenty minutes to rearrange it, by which time he seemed to have become quite "cooled down," and indeed somewhat dumpish. The team was started off with the load for the city, but by the time they had accomplished half the distance this horse had so far failed, had become so weak about his loins and hind legs, as to require some urging to keep up without drawing any part of the load; and, finally, it was with much difficulty that he was got to my stables in this city, when he immediately laid down and could not be got up for the next three days, apparently in much pain, passing very regular stools but no urine; so the bladder soon became much distended, accompanied with excessive heat.

Having no proper catheter, and none to be obtained in the city, I had one made (and a very good one) of leather, somewhat similar to the round part of a check-rein, forty-two inches in length, which still fell short, but, by attaching to the outer end a cord, I was enabled to push it forward into the bladder, directing the point between the ends of two fingers of the hand introduced into the rectum.

The external diameter of the catheter was about half an inch, and, though evidently none too large, was pushed forward with con-

siderable difficulty on approaching the neck of the bladder. The result was about two gallons of hot, high-colored, almost black, ropy urine, producing evident relief, and although he had been considered as "past hope," he soon exhibited symptoms of improvement, but the various external applications, together with diuretics made use of, seemed to produce little or no effect.

Twenty-four hours afterwards the catheter was again used (as he did not as yet void his urine,) the result of which was, besides about two quarts of urine in the first place, about a half pint of healthy pus, since which time he has voided the urine quite regularly, and in quantities to render a repetition of the catheter unnecessary, with evident improvement in all the symptoms, so that on the fourth day he got up, and is now (nine days from the injury) able to walk about, though very weak behind and considerably drawn up into the position of a horse about to kick, which, *perhaps*, might be ascribed to his having lain three days in nearly that position.

In this case, where was probably the injury? Was it to the bladder directly? or was it to the psoas muscle and the inflammation extending to the bladder? And whence this pus, evidently occupying that portion of the bladder near the neck? The attention of your readers and correspondents is respectfully called to these questions?

Veterinary surgeons will, from this case, perceive the necessity of being provided with an efficient catheter, (which should be at least forty-eight inches long and about one and a half inches in circumferance,) since, in this case, an extremely valuable horse has doubtless been saved through its instrumentality, nor was it used any too soon, for I am satisfied that a few hours longer delay would have proved fatal. It may not be amiss here to state a well established fact, that the catheter, if a little too small, will be passed with more difficulty than one large enough to slightly distend the urethra, the latter more readily passing the folds in the urethra, the prostrate gland, &c.

You will make what use of this you may deem proper or useful; and your comments upon the subject would be read with much interest.

By yours most respectfully,
E. B. MIDDLEBROOK, M. D.,
Veterinary Surgeon,
15 and 17 Middle street.

Bridgeport, Ct., March 30, 1857.

We invite the attention of our correspondents to the above case, yet suggest that the "healthy pus" might have been albumen.

HINTS IN VIEW OF STUDYING HUMAN PHYSIOLOGY.

We recommend our readers to study physiology, because the human constitution is endowed with fixed and eternal laws, a knowledge of which, and fidelity to what they teach, will secure to us health, happiness, and length of days. We cannot obey these laws unless we know them, for there is no affinity between ignorance and knowledge; but an opposition exists, we must follow the teachings of reason, *God-like reason.* The sensual natures of our fallen race are opposed to our best interests. They rebel against the divine impression implanted in our constitution. We eat not to nourish the body and develope its fair proportions, and draw out the latent powers of the immortal mind, but to pamper the taste, to supply the longings of a depraved and morbid appetite; and thus some may be said to dig their graves with their teeth.

We drink for the same reason — to satisfy morbid thirst, to keep pace with indiscretion and old habits, instead of striving to furnish materials for the manufacture of pure blood and healthy serum.

We take exercise, not always, for the purpose of purifying the vital current and developing the muscular system, but often because the dollars can be seen in the distance: an embryo California has just been discovered, and we travel, during business hours, at a rapid trot, on the road to wealth. And we sleep, too, not so much for allowing the forces of the body to regain what they have lost during the day, but to satisfy our inactivity and sluggishness.

Hence, while we are in this sensual state, and refuse the overtures of illumination which the lamp of physiology, the science of life, holds out to us, we cannot either know nor obey those harmonious laws referred to.

Let the millions understand that God implanted in man's organization normal laws, to preserve the identity of our race, to promote our full development and happiness, and that these blessings are always in exact ratio to our obedience. Then an era will arrive that shall redeem the race and restore man to his primitive prerogative.

Direct the attention of men from the paths of pathology, where they have labored for four thousand years with so little profit to our race, and turn them into the paths of physiology; then a large portion of the diseases that now so painfully afflict mankind may be prevented.

We cannot be engaged in a better work than in diffusing such knowledge as shall make men conversant with the structure of their own systems, the proper function of the various organs, and the causes which derange, depress, and paralyze the vital principle.

BREAKING OF A BAULKY HORSE.

If there is any time when a man needs "the patience of Job," it is when his horse baulks. The horse that cannot be coaxed or tricked into labor, had far better be left alone. Many a noble animal has been ruined by violence, and many a desperate baulker has been made valuable by kind and gentle management. There are many methods by which a horse may be cured of baulking, but the following narrated by a correspondent of the *Rural American*, possesses some novel features. The writer says he had a valuable horse, who could go fleetly when in the humor, and would not go at all when not disposed. One day, losing his temper, of course, he whipped the horse until exhausted, and then hired a neighbor to continue the operation, and, after two carriages were broken, the victorious horse was put in the barn. How the gentleman rendered his horse kind and tractable, we will narrate in his own language:

"The next day after my anger had settled, I thought the matter carefully over, and concluded that, as I could not be driven where I did not want to go, but could be coaxed, the horse might be influenced by the same feelings. An entire change of tactics was determined upon. For the next three days the animal was well fed, much fondled, and not used except a little under the saddle, where she always did well enough. Then the repaired gig was brought out in front of the house, the beast harnessed, led out and hitched to the gig, carefully tied to the post and left there for an hour to her own reflections. It was a most sultry day in July, and I concluded a little exposure to the sun would incline her to go, rather than stand still. It was a mistaken opinion, for when I got into the gig at the end of an hour, she stood as still as the post she had been tied to.

"No efforts were made to urge her forward, but on the contrary she was well patted, the bridle was taken off, a couple of sprigs of green lobelia wrapped around the bit, and then the piece returned to her mouth, and she left to chew upon it at her leisure. At the end of another hour it was evident that the lobelia had begun to make her feel nauseous, and again she was tried, but would not move any more than before. Fresh springs of lobelia were then tied upon the bit, a cloth dipped in cold water and placed upon the top of the head and changed every eight or ten minutes for another hour. By this time she began to froth at the mouth and look sleepy out of her eyes, good evidence that the medicine had made her decidedly sick. I then got into the gig and chirruped, and away went the animal at a startling pace. I drove her four or five hours, she went every way I wanted her, and returned home with a good relish for her supper.

"In this way I managed the animal every time she got sulky, and always with success. In a few weeks she became so well acquainted with the mode as to give demonstrations of a desire to go, whenever the bridle was being removed with the intention of using the lobelia. In two months she was thoroughly broken in, and never troubled me afterwards."

There is a philosophy in this mode of arrangement. In the first place, the animal was completely nonplussed by being treated with the utmost kindness and gentleness, for she was not used to such management on such occasions. Then, the relaxing influence of lobelia made her feel nauseous, and nausea is a suitable antidote to ugliness, softening down the passions in a most surprising manner. The addition of water was a decided 'cooler' upon the temper as well as upon the skin, and was an argument against which stubbornness could not thrive. The treatment was so effectual in this case that we are induced to give it a warm recommendation. There are some farmers who do not have baulky horses, that can yet try it upon themselves and thus test its potency to great advantage."—*Boston Journal.*

PRINCIPLES OF LAW, APPLICABLE TO VETERINARY SURGEONS.—Any man who puts out a sign or issues a circular or card, informing the public that he is *qualified* and skilled in the science of *veterinary medicine and surgery*, is responsible to his employers for the necessary and proper knowledge which his profession demands.

Every man who announces himself as a veterinary surgeon impliedly contracts with those who employ him, that he has the necessary information which enables him to perform the duties of his calling in a proper and scientific manner. If he be wanting in such scientific qualifications, and by reason thereof his patients are injured or die in consequence, the employer can recover the amount of damage resulting from such mal-practice.

The law requires that every veterinary surgeon shall be in possession of such an amount of knowledge and learning as shall enable him to discharge with *reasonable* skill, *learning*, and *success*, the several duties incumbent on him as a professor of the healing art; for ignorance, negligence, &c., the surgeon is responsible. This is rather a hard nut for some of our *self* styled *vets* to crack; they had better "wake up," and either adopt the ordinary means of qualifying themselves, or else pursue some other calling better adapted to their *questional* capacities.

COWS DYING FROM EATING HAIR.

The Valley Farmer, published at Louisville, Ky., states that a singular mortality among the city cows running upon the Common has prevailed in that city in the early part of this winter, the cause of which has been pretty satisfactorily traced to their eating hair that remained in the grass where the hogs' hair from the slaughter-houses had been spread to be washed by rains and dried in the sun. The effect upon the earth after the hair was removed was to fertilize it and cause the grass to grow luxuriantly, which attracted cattle, and, while cropping the grass, they took in considerable quantities of fine hair, the natural tendency of which is to become felted together and massed into one or more hard balls, which were, in the days of New England witchcraft, called "witch balls," and not a few people at this day believe that such is their origin. These balls sometimes accumulate material until they are bigger than ordinary sized goose eggs. It is not surprising that death ensues from the irritation of such an indigestible mass in the stomach of an ox or cow, and it is also not surprising that many deaths of cattle cannot be accounted for by their owners; but the certainty that such causes do produce death should act as a caution to cattle owners. Some years ago, the same as that at Louisville killed a number of cows at Terre Haute, Indiana, and upon opening the stomachs of them, it was found that not only one or two balls had formed, but a mass of them, that nearly filled the whole cavity of the stomach.—*Carolina Cultivator.*

EPIZOOTIC AMONG CATTLE.

Fears are entertained by the people of England that the destructive cattle epizootic, formerly known as murrain, will ere long be introduced into that country from the continent; and we learn, through the pages of the "London Veterinarian," that the subject has been brought before the English Parliament. The government have, in consequence, directed communications to be made to their consuls abroad, requesting them to send any information they shall obtain in reference to the disease; and Custom House officers are also instructed "to watch narrowly all cattle imported from abroad."

The editors of the above periodical inform us that "the disease, which passes under the ordinary term of *murrain*, possesses, according to the best and most recent veterinary authorities, most of the features of a malignant typhoid fever, and has consequently been appropriately designated *contagious typhus*."

RECOLLECTIONS OF ENGLISH RACE HORSES—ECLIPSE.

Prof. Low, in his work on domestic animals, thus alludes to "Eclipse:"—"Eclipse was got by Marske, a grandson of Bartlett's Childers, out of Spiletta. He was foaled in the year 1764, during the eclipse of that year, from which circumstance he took his name. He was bred by the Duke of Cumberland, and, on the death of that Prince, sold to Mr. Wildman, a salesman at Smithfield, and afterwards he became the property of Mr. O'Kelly. Eclipse had not the grandeur of form of the Flying Childers, and might have escaped notice, but for the accidental trial of his stupendous powers. He was about fifteen hands and one inch high. His shoulders were very low, oblique, and so thick above, that, according to the observation of the time, a firkin of butter might have rested upon them. He stood very high behind, a conformation suited to his great power of progression. He was so thick winded as to be heard blowing at a considerable distance. In the language of honest John Lawrence, "he puffed and blowed like an otter, and galloped as wide as a barn door." No sooner were his powers exhibited on the turf, than every eye was set to scrutinize his form, and he was then admitted to possess in perfection the external characteristics indicative of great speed. A volume was written on his proportions by M. St. Bel, a veterinary surgeon, whose investigation showed that his figure differed greatly from the conventional form which speculative writers had assigned as the standard of perfection. He was of an indomitable temper, and his jockeys found it in vain to attempt to hold him, but contented themselves with remaining still in the saddle, while he swept along, his nose almost touching the ground. His full speed was not determined, since he never met with an opponent sufficiently fleet to put it to the proof. He not only was never beaten, but he was able to distance some of the best horses of his day; and the fleetest could not keep by his side for fifty yards together.

"This remarkable horse first appeared on the turf at the age of five, in 1769. In the first heat he set off of his own accord, and easily gained the race, his rider pulling him in vain with all his force for the last mile. O'Kelly observing this, and aware of his horse's powers, offered, in the second heat, "to place the horses," and he took heavy bets that he did so. When called upon to *declare*, he said, "Eclipse was first, and the rest no place." He gained his wagers: Eclipse was first, and the others were distanced, or, in the language of the turf, had no place. From this time Eclipse was continually on the turf, and gained every race. No horse daring to contend with him, he closed his career of seventeen

months by walking over the Newmarket course for the King's Plate, in October, 1770. During this brief period, it is said that he gained £25,000 for his owner. He was then employed with prodigious profit as a stallion. He got 334 winners at our numerous race-courses, who are computed to have gained about £160,000 to their owners, besides cups and plates. Eclipse died in the year 1789, at the age of twenty-five." In our next we shall give the geometrical proportions of Eclipse. This famous horse was a descendant from the Darly Arabian.

RESEARCHES ON THE CAUSE OF THE FLUIDITY OF THE BLOOD.

Dr. B. W. Richardson, in a paper read before the chemical section of the British Association for the advancement of science, commenced by giving a historical sketch of the various hypotheses which had been formed to account for the fluidity of the blood and the phenomena of coagulation. He then related his own investigations, which had led him to the discovery that ammonia is a constituent of the blood, and that on its presence the solubility of fibrin, and therefore the fluidity of the blood, is dependent. The numerous experiments performed by the author were described: they may be thus briefly classified: 1. By causing the vapor arising from coagulating blood to pass through another quantity of blood, drawn as nearly as possible at the same time and from the same animal, the coagulation of the latter is suspended so long as the current of vapor is kept up. 2. By driving the vapor of coagulating blood into pure hydrochloric acid, and afterwards treating with chloride of platinum, the characteristic yellow crystals of ammonio-chloride of platinum are procurable. 3. On collecting a large quantity of freshly-drawn blood in a wide-mouthed jar, and placing over a cover, to the interior of which is fixed a slip of glass moistened with hydrochloric acid, the glass becomes covered with microscopic crystals of chloride of ammonium. 4. If fibrin removed from blood be carefully dissolved in a weak solution of ammonia, and again added to the serum and red particles, coagulation may be induced. The result arrived at was, that the phenomenon of coagulation depends essentially on the evolution of ammonia from the blood; and this gives an explanation of the modifications observed in the process of coagulation under various physical conditions. In concluding his paper, Dr. Richardson pointed out that ammonia, in combination with carbonic acid gas, is a constant constituent of the air expired

in the breath. The presence of ammonia in the animal economy, and its evolution in respiration, was of interest in that it connected more closely the link that exists between the animal and vegetable worlds. But the subject was of the greatest importance in relation to the causes, the nature, and the treatment of various diseases. — *Proceedings of British Assoc. for Advancement of Sciences*, 1856.

TUBERCULOSIS.

A few days after the arrival of a large draft of fine mules from Valencia, Alicantia, and Gibraltar, in the course of my inspection of them, I observed a fine mare of their number in a plethoric condition, breathing with much difficulty, and having a slight discharge from both nostrils. She was much depressed in her general appearance; the pulse was quick, mouth hot, breath offensive, extremities cold and appetite totally gone.

These symptoms not justifying any antiphlogistic treatment, I gave stimulants, clothed the body, and bandaged the legs, anticipating an aggravation of the animal's sufferings. On the following morning my patient was much worse, and, in addition to the other symptoms, there was a drooping of the head, and a change both in the nature and quantity of the discharge, which now consisted of blood and pus, evidently coming from the lungs, while the breath was even more fetid than on the previous evening. On ausculating the chest I heard, in inspiration, a decidedly musical sound on the right side, behind the scapula, as if the air in its passage rushed suddenly into a cavity, and was then carried to a sound portion of the lung. No respiratory sound was audible a little below the median line of the chest. On the left side the sounds of the heart, which were unusually distinct, interfered somewhat with a sort of gurgling noise, of which, from this cause, I could make nothing.

Being an interesting case, I visited the patient several times during the day and repeated my examinations, which only the more confirmed me in my first diagnosis, viz., that organic disintegration of the lungs existed, which was beyond the reach of human skill to eradicate.

On the next, the third day, the discharge and other symptoms were greatly increased. The anxiety evinced in the general demeanor of the animal, the vacant and hopeless gaze, drooping head, hurried and oppressed respiration, were positively painful to witness. Death terminated the sufferings of the poor brute in the course of that night.

Post-mortem appearances. — On cutting into the right lung I discovered an abscess, *large enough to contain a man's head*, extending thence into the left lung through the mediastinum. The cavity contained a quantity of broken up lung-tissue, and no definite line could be traced between the diseased and the less affected parts. The lower portion of the right lung was also diseased and impervious to the air; adhesion had likewise taken place between the pleura pulmonalis and pleura costalis. All the other portions of the left lung appeared to be in a normal condition.

The heart and abdominal viscera presented nothing remarkable. As the journey by sea was not a long one, I should suppose that the disease existed at the time of purchase.—*From London Veterinarian.* "Crimean Reminiscences," by T. Paton, V. S.

IMPORTANCE OF VETERINARY SCIENCE.

"No pursuit renders greater service to the country than the veterinary: agriculture, industry, commerce, as well as the army, receive vast aids from it. The domestic animals contribute to our intelligence, to our wants, their superior powers, their wonderful instincts, their ever-ready servitude, their entire substance. They are at once sources of revenue, machines, means of transport, laborers, companions, at times friends even, prime movers, clothes, aliment, docile subjects, with abundant experience. What are they not to us? They partake of our labors without profiting by them; of our pleasures without enjoyment in them; of our glory even without hesitation. They live and die to serve us, and we seek but too often the secret of our own good at the very heart even of their sufferings. Veterinary science is still but recent. It dates its foundation but from that of the school we are now in, from less than a hundred years. The future envelopes many discoveries, among which, let us hope, will be found efficacious remedies for some of the terrific diseases yet without means of cure."—*Veterinarian.*

A Springfield paper records the death of "Jehu Cricket," a well known horse in that city, who was said to be full fifty years of age.

An advertisement says:—"For sale an excellent young horse—would suit any timid lady or gentleman with a long silver tail."

LAMPAS IN HORSES.

MR. EDITOR: — My attention was called to this subject by passing a blacksmith shop, and seeing a horse refuse to submit to the barbarous operation of having the lampas, as it is termed, burned out. Now, sir, to save the noblest of animals from that unnecessary torture, I will briefly state my practical experience. It frequently happens that horses are brought to me with the bars on the palate in a state of tumefaction, causing an unnatural prominence of the lower ridges of the palate. I would not trouble you on this supposed malady, but it has called forth infliction of great torture on the animal. Lampas is neither more nor less than a torpidity of the vessels of the palate, caused by an inflammatory condition of the gums which frequently attend the teething process. In such a case we ought instead of burning out, remove the cause by lacerating the gums, and this is seldom called for. I find that in tumefaction of the mouth, arising from whatever cause it may indicate, cooling and astringent washes — a weak solution of alum is very good, or an infusion of witch-hazel or bayberry bark, will answer the same purpose.

The practice of burning out lampas has received the seal of the ancients, but, I trust, in this age of progression, such ancient barbarities will be superceded by practical science. — T. WEBB, V. S., *in Zanesville Times.*

GOOD STOCK.

MR. EDITOR:—I always notice fair stock wherever I find it, and especially in horses and colts. I saw yesterday a colt owned by D. T. Sargent, of Boxboro, Mass., which goes by the name of Pete Jones,—he surpasses anything in the line of horses that I have ever seen. In all respects, in size, color, proportion, and cleanliness of form, in beauty of make, in every particular he is first rate. His steps are taken as easy as though his limbs were hung on wires. I thought, as soon as I saw him move, so easy and loose that he must be a trotter, and enquired about his speed, when Mr. Sargent said, "that he trotted on Lawrence track, last November, half a mile in one minute and a half, being then two years and a half old." Mr. Sargent says he is willing to trot him against any other colt of his age, and he thinks he can show a 2:40 gait by next September. I certainly think that he will be in the "Ethan Allen's" class of horses before many years.

A Friend to Fine Horses and to Men that Know How to Raise them. B. LAWRENCE.

ERRATUM.—On page 118, second line of heading, April No., for "Spring," read "*Sprung*."

ITEMS FOR THE SPORTING WORLD.

Selections from the "Spirit of the Times."—"Maltese, the dam of the Knight of St. George is dead.

THE NEW JOCKEY CLUB.—"The bill for the establishment of a new Club for the improvement of the breed of horses in our vicinity, to which we referred in our last issue, passed the Senate on Monday last without amendment, notwithstanding strenuous efforts were made by some members who cannot appreciate a good horse, to defeat it."

TROTTING MATCH.—"Thursday, May 21—Match for $250 a side, mile heats, best 3 in 5, between Julia Dean and Sam. Webster; Woodruff and Wheelan to drive.

Sam. Webster was formerly called Harry Hazel. Julia is the favorite in both matches."

"THE PHARSALIA JOCKEY CLUB RACES.—We copy from one of our exchange (we forget the name) the following notice of the late meeting of the Pharsalia Club:—

This celebrated track, near Natchez, presented a most animated scene of excitement during all last week from Wednesday morning until Saturday evening. Col. A. L. Bingaman, the 'Napoleon of the Turf,' came off victor with his entries, every one of the days of the race; and, not content with his conquests, he bequeathed his Waterloo-Wellington proclivities to his negro man, Tom, who came off victor in the far famed Mule Race on Saturday afternoon.

We had intended a description of this almost indescribable race of the true working animals of the South; but the artists have the start of us; their illustrations, now on exhibition at Natchez, would make an independent fortune for 'Punch,' if he could get hold of them.

Fifteen entries, on the first heat, dwindled down to ten before the contest was decided—five having fallen through promiscuously, Instead of space constituting distance, time was substituted, and twenty minutes behind all the rest was to be taken as distanced. The one nearest accomplishing this enviable position was the largest *mule-ess* entered, Black Betty, who came in fourteen minutes behind all the rest, and so recommended herself by saving six minutes that she was sold the same evening for two hundred and seventeen dollars.

It is thought that high-bred aristocratic horses will never consent to run over that track again until tremendous thunder showers shall have washed all the mule out of 'the turf.' Nevertheless, the mule is an institution of the South, the fellow-laborer of Africa, and should have a chance to rise in the world. How his brother did grin at his field companion's triumph!"

"DEATH OF FRANKFORT.—We regret to learn that Frankfort, a very promising colt, owned by Mr. David McDaniel, died immediately after the great four mile race at Columbus, Ga., in which he was enguged. Sixteen miles were run before the race was decided. Charleston won the first, Frankfort the second, and Sue Washington the third and fourth."

"DEATH OF AMANDA.—The celebrated racing mare, Amanda, belonging to Col. J. M. Wilson, of Assumption parish, La., died lately at the Trinity Plantation, of inflammation of the kidneys. She was well known, and we doubt not that her loss will be severely felt by her owner, and the lovers of fine stock."

MISCELLANEOUS.

"U. S. Ag. Society's Executive Meeting at Louisville.—At the recent session of the Executive Committee of the U. S. Agricultural Society at Louisville, Ky., Hon. James Guthrie, Thomas H. Hunt, J. B. O'Bannon, B. J. Adams, Wm. Watkins, and Isaac Everett, were appointed to constitute the local committee in connection with Messrs. Gibson Mallory, and Edward D. Hobbs, *ex-officio* members; L. A. Whitney was appointed Assistant Secretary, and Arthur Peter, Assistant Treasurer. The exhibition is to commence on Tuesday, September 1st, and continue five days. Extensive improvements have been planned upon the grounds of the South-Western Association, on which it is to be held, comprising additional stables and other requisite buildings. It is unnecessay to add that every Kentuckian will feel a personal interest in the success of the Exhibition, and that no State possesses more energetic, open-hearted, and public-spirited friends of the cause of Agriculture."

Honorary.—It affords us much pleasure to learn that our esteemed contributors, Drs. Charles, and Robert Wood, have been elected honorary members of the "Philadelphia Veterinary Association."

Language of Animals.—No philosopher questions the ability of animals to convey their thoughts, meaning and intentions to each other. Do migrating birds congregate from an impulse or instinct, and hover about a particular locality week after week, till the whole are collected together, before commencing their annual journey? How happens it that one bird takes command of the caravan? Is it by general consent, from an instinctive knowledge of his capacity or superior experience? Wild horses obey a stallion, who is a general of the forces. He exercises his command—bringing to a line; wheels them by sections, and dismisses them by a word they certainly understand. At pleasure they are again mustered, and move according to his supreme will. Is there a language here?—*Medical World.*

Acknowledgements.—We are indebted to Arthur S. Copeman, V.S., for a copy of the "Utica Evening Telegraph," containing an article from him on the subject of the "hundred mile race." The reader will notice an article in the present number on the same subject. We are indebted also, to Dr. Copeman, for a copy of "Observations on some of the Deformities of the Limbs of Horses, particularly those which are congenital; with others, depending upon injury of tendon or ligament. By G. W. Varnell, M. R. C. V. S., Demonstrator of Anatomy in the Royal Veterinary College," London. The *work* shall receive due attention in our next number.

The Editor of the "*Southern Planter*" is informed that articles on acute and chronic rheumatism can be found at pages 225, 227, vol. 1 of this Journal. The "Southern Planter" is published monthly at Richmond, Virginia, by F. G. Ruffin, and N. August. Price two dollars per annum. The "Planter" is in its seventh year, has a large circulation, and the Editor (F. G. Ruffin,) is a scholar and a gentleman.

EDITOR'S DRAWER.

We have received Nos. 9 and 10 of the "Medical Chronicle or Montreal Monthly Journal of Medicine and Surgery." Edited by William Wright, M. D., and D. C. Mac Callum, M. D. Published at Montreal, two dollars per annum payable in advance. It affords us much pleasure to have the privilege of placing on our exchange list the current medical literature of the day, and we hail this acquisition from the *Colonies* as an omen of good. Drs. Wright and Mac Callum are Professors in the Medical Department of the University of M'Gill College, and aside from their literary qualifications, their facilities for obtaining instructive matter, is exemplified in the two members before us. It is a periodical that should circulate extensively in the United States, and if any of our medical brethren have such an article about them as a "two dollar bill," here is a chance for a profitable investment.

"A Practical Treatise on Grasses and Foreign Plants: comprising their Natural History, comparative nutritive value, Cutting and Curing, and the management of Grass Lands. By Charles L. Flint, A.M., Secretary of the Massachusetts State Board of Agriculture, member of the Boston Society of Natural History, etc., etc." Published by Messrs. Putnam of N. York and N. Trübner & Co., London. Price, $1,50.

In our last issue we acknowledged the receipt of this elegant volume, and we have since endeavored to master its contents, and digest its texts. We have succeeded to a certain extent, and the deeper we drink of its scientific agricultural aroma the more convinced are we of its value and importance to the scientific agriculturist. He who desires to carry on farming after the fashion of antiquity had better not read this book, for should he do so, it will convict him of many errors, and he may, consequently, have to perform the troublesome task of unlearning what he now professes to know *correctly* of the science of agriculture. This is a difficult task for some persons to perform, and in some cases may compare with the unpleasant task of swallowing choke-berries, or of walking on broken glass bottles, barefoot. In regard to the subjects treated of in this work Mr. Flint has few equals: his style of composition is terse, practical and original, and occasionally he grows eloquent, as the reader will perceive on perusing the following extract. The theme is "grasses." "A family of plants, the most extensive and beautiful, as well as the most important to mankind. It embraces nearly a sixth part of the whole vegetable kingdom: it clothes the globe with perpetual verdure, or adorns it at fixed seasons with a thick matted carpet of green, none the less beautiful for its simplicity, and it nourishes and sustains by far the greater part of the animals that serve us and minister to our wants."

This excellent work is adorned by numerous illustrative cuts, and the texts are demonstrated by reliable documentary evidence. The work is a valuable contribution to the agricultural literature of the day, and we hope that the author may receive his reward.

We are indebted to Dr. M. A. Cuming for the first number of "The Farmer; an Agricultural Magazine for New Brunswick, Nova Scotia, and Prince Edward's Island. Published by W. Bellingham: No. 3 Ritchie's Building, Saint John, New Brunswick. Price 3s., 9d. per annum." This periodical is introduced under favorable auspices; we notice that several societies of N. B., have subscribed for over two hundred copies. This is a capital good start for an agricultural paper and no doubt it will prove remunerative to the publisher. We understand that M. A. Cuming, V. S., takes charge of the stock department. He is an industrious man, a good surgeon, and clever writer; and the publisher has done wisely in securing his services. The "Farmer," as the reader is informed, is intended for the above location, yet we presume the publisher will urge no objections against receiving subscriptions from any other source. We are not informed who the Editor is.

We are indebted to Prof. C. H. Cleaveland, for a very respectable and creditable pamphlet of thirty pages, prefaced by the following interrogation. "Are the Mercurials Anti-Syphilitics?" A reprint from "*The College Journal*" By C. M. Cleveland, Cincinnati, Ohio. It has always appeared to us that the treatment of syphilis (one of the most loathsome diseases that has ever made its appearance) by the use of large quantities of mercury taken until the unfortunate victim is in a state of ptyalism, expectorating at the rate of two or three pints, sometimes quarts per day; thus adding a grave *medicinal* disease to the syphilitic affection; was decidedly wrong, and we are glad to find this Dr. C. has taken up the gauntlet.

The "College Journal" in which the above pamphlet appears is published monthly at Cincinnati, Ohio, at the low price of one dollar per annum. It should be read by every one.

"Official Report of the California State Agricultural Society's Third Annual Fair, Cattle Show, and Industrial Exhibition, held at San Jose, Oct. 7th to 10th, 1856.

We are indebted to the Editor of the "*California Farmer*," for a copy of the above. It occupies about 75 pages of closely printed matter, and seems to indicate

that the agriculturists of our Atlantic City, and her wide domains, bid fair to outstrip the *northmen* in the matter of raising large crops, and superior animals for which her soil, climate, and the acquired enterprise of her sons, are so eminently calculated to accomplish. The people of California are distinguished for indomitable energy and enterprise, and if *two* blades of grass can ever be made to occupy a spot naturally assigned for *one*, California with her virgin soil seems to be the place for it. The following extract from an address by C. S. Beard, Esq., President of the State Agricultural Fair, will give the reader some idea of the vast and various resources of a soil which surpasses that of any other in the world.

"Within four years, I venture to predict that our markets will be as abundantly supplied with all the choice varieties of fruit, as the most favored sections of the Atlantic States. We particularly excel in three staple fruits—the Peach, the Pear, and the Apple. We naturally excel in fruits that are more nearly tropical, and within a few years we shall actually produce more Olives, Figs, Raisins, Oranges, Lemons, Prunes, Dates, and Nuts, than the present import of these articles into the United States—amounting to over three million dollars per annum.

'In the successful cultivation of Tobacco, Cotton, Rice and Sugar, our experiments thus far have been limited. But, such as they are, they leave no room to doubt that, in a short time, we shall be able to supply our own demand, besides furnishing a surplus for export.

"With a climate kindred to that of Asia Minor, Greece, Italy, Southern France and Spain, comparatively free from dampness, and entirely free from thunder storms (which are the great enemy of the silkworm) there is no reason why we should not become a great silk-producing community.

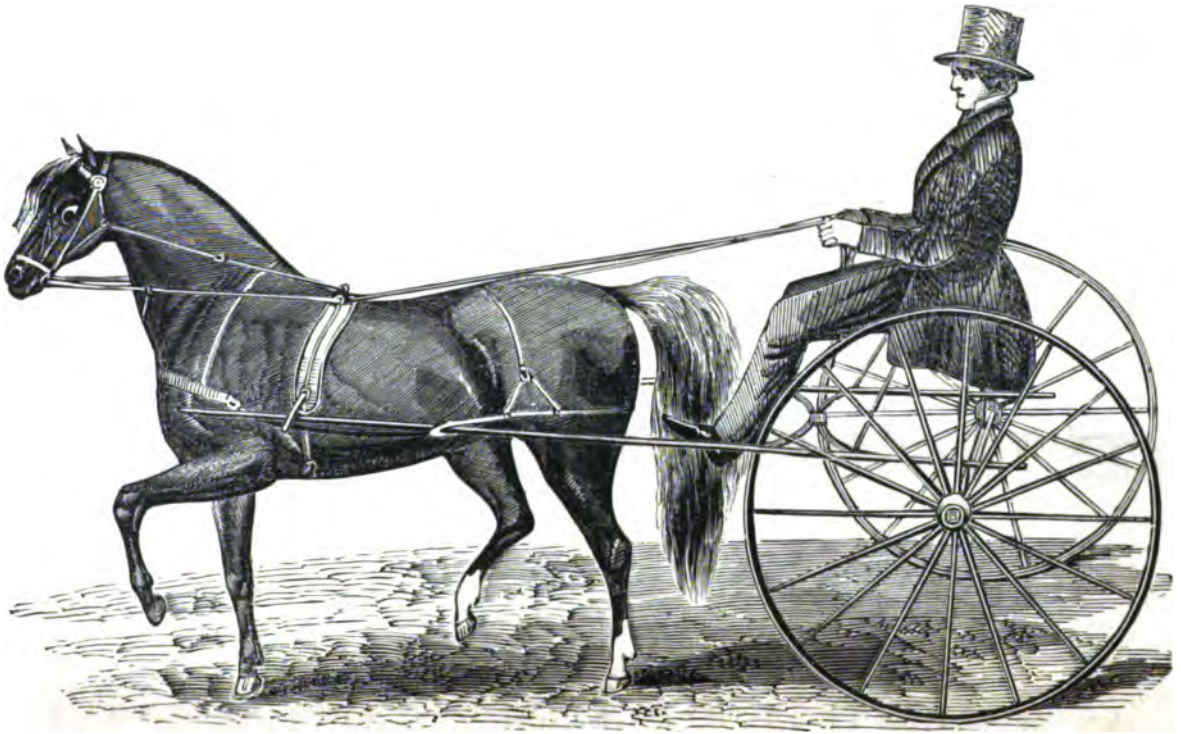
"The Cork tree, the bark of which forms a considerableitem of our imports, can also be raised here as well as in Spain.

"Add now to all this the advantage of our commercial position; overlooking the greatest ocean of the world, and holding the terminus, in due time, of the greatest continental highway of commerce in the world; having a climate healthy and vigorous beyond almost any other on the globe; possessing endless varieties of mineral products, Sandstone, Marble, Asphaltum, Coal, Iron, Alum, Salt, Sulphur, Quicksilver, Copper, Lead, Silver and Gold—furnishing thus materials for every sort of labor, and all the elements necessary to employ the different varieties of skill and production. Bring all these into view, and how mighty the population this one State is able to support, and is destined ere long to see."

"Fourth Annual Report of the Secretary of the Massachusetts Board of Agriculture, together with Reports of Committees appointed to visit the County societies."

We are indebted to Secretary Flint for a copy of the above. An agricultural report is a literary production which, although composed of reports of committees, &c. embracing abstracts, appendixes, &c., involves a vast amount of labor on the part of the Secretary, and he would find it a much easier task to *compose* a work comprising the same amount of matter as we find in the above, than to get into readable shape the observations, deductions, and compositions of persons unaccustomed to write for the press; the task is a laborious one, and only those persons who have performed the herculean feat, are at all prepared to judge of the amount of talent, tact, and industry required. Mr. Flint is eminently qualified for the task, and his reports are becoming more interesting from year to year.

Editorial Chit-Chat.—"We observe in the list of 'Exchanges,' published in the *Veterinary Journal* the subscription price of the *Agriculturist* is set down at two dollars per annum, just four times too much."—*Canadian Agriculturist.* Well, Brother Mc Dougall, if our opinion on the value of an agricultural journal is worth anything you ought to feel flattered, still we are glad to correct the error, and therefore inform our readers that "The Canadian Agriculturist" a first-rate monthly, is published at Toronto, C. W., by William McDougall. Price fifty cents per annum. We notice in the March number of the Agriculturist some of the *spirit of our Journal* without the usual *acknowledgement.*



FLYING MORGAN.

THE SIRE OF ETHAN ALLEN, NOW STANDING AT CAMBRIDGEPORT, MASS.

THE AMERICAN

Veterinary Journal.

DEVOTED TO THE DIFFUSION OF VETERINARY KNOWLEDGE.

Edited by GEORGE H. DADD, Veterinary Surgeon.

Published by S. N. THOMPSON & Co., 97 Union Street.

PRICE, ONE DOLLAR PER ANNUM.

VOL. II. BOSTON, MASS., JUNE, 1857. NO. 6.

LAW OF SYMPATHY, AND THE SYMPATHETIC RELATIONS WHICH EXIST IN THE ANIMAL ECONOMY.

SYMPATHY. — *Definition*, — To suffer together; to sympathize. The animal structures are so sympathetically related to each other, and so dependent are various organs and functions on an equilibrium of vital action, based on the law of sympathy, that the animal economy, as a whole, may be said to compose a vast machine, the integrity of which depends on the free and full play of all parts composing its intricate mechanism. The media by which sympathy is aroused and maintained, are the nerves; these originate from the brain and medulla spinalis, (or spinal marrow.) Ten pairs of nerves originate directly from the brain, termed cerebral; thirty-nine pairs from the spinal marrow, termed spinal. They are named after that of the region in which they are found; hence we have seven pairs issuing from the cervical region, (neck); eighteen from the dorsal, (back); five from the lumbar region, and five sacral within the pelvis; four coccygeal; making in all, forty-nine pairs of cerebro-spinal nerves. They are distributed from each side of the spine to various parts of the body, and their terminations are called "*sentient*" — this being the seat of sensation.

The most important nerve, however, for our consideration is the sympathetic. It is supposed by some writers to be in itself a complete nervous system. It originates in a branch issuing from the base of the brain, and communicates with every other nervous fila-

ment of the body. The connection takes place in the following manner: — The sympathetic nerve has, at various points, a number of gangliform plexuses, from these, thread-like filaments arise, which radiate and connect with similar ganglions found on the cerebral and spinal nerves. On these divergent filaments we have other ganglionic structures, which send branches to the liver, spleen, kidneys, &c. The sympathetic nerves of one side amalgamate with those of the opposite, and this is their mode of communication.

The nerves of the sympathetic system possess a certain degree of power in exciting muscular contractions as well as sympathetic actions, in the various parts to which they are distributed. *Carpenter* has observed, "that by irritating a branch of the *sympathetic* immediately after the death of an animal, contractions may be excited in any part of the alimentary canal, from the pharynx to the rectum, according to the trunks which are irritated, — in the heart, after its ordinary movements have ceased, — in the aorta, vena cava, and thoracic duct, — in the ductus choledochus, uterus, fallopian tubes, vas deferens, and vesiculæ seminales, &c. It is probable that the sympathetic system not only thus brings the *organic* functions into relation with the *animal*, but that it also tends to harmonize the former with each other, so as to bring the various acts of secretion, nutrition, &c., into mutual conformity."

There are several orders of sympathetic nerves; for example: some supply the muscles of involuntary motion, and form unions with the cerebral nerves; others pass into the parenchyma of the organic viscera; and, lastly, there are distributions on the outer coat of arteries, continuing throughout their minute capillary structures into the papillæ. By this arrangement the harmony between the internal, external, and remote parts is perpetuated.

Correct knowledge regarding the sympathetic relations, peculiar to animal organization, seems absolutely necessary in order to correct the erroneous impressions that some persons have formed, of the nature and seat of disease, incidental to horses and cattle, and in this view we offer these preliminary remarks as introductory to the subjects of "*horn* and *tail* ails," which will follow in our next; — (imaginary diseases, which oftentimes, perhaps always, are the result of a fertile imagination, or rather a sequence of this faulty mode of reasoning which confounds effects with causes.)

Any person conversant with the sympathetic relations existing in the animal economy, can readily discover the difference between a pathological condition and the local or general symptoms which usually accompany it. A horse, for example, is attacked with acute disease of the liver, he evinces signs of pain from pressure on the right, or off side, in the region of the liver, and may possibly

be lame in the off-fore limb; the pain and lameness may be of so grave a character as to mislead the *non*-medical observer, and he necessarily concludes that the subject is *lame*, and "nothing more," and he prescribes an external remedy accordingly, which is not calculated to cure nor palliate the liver difficulty. Thus, for want of the necessary knowledge the symptoms are mistaken for the disease.

In derangement of the digestive organs, more particularly of the stomach, the brain is usually sympathetically affected. The symptoms of disturbance in that organ, or its function, may escape the attention of the "cow-leach," yet they are always present, and range from what has been observed as "*dullness*," up to somnolency, accompanied by other morbid phenomena well understood by the physician.

A knowledge of these and other sympathetic relations existing throughout the animal economy, enable us to understand what occasions vomiting in man, when a blow of sufficient force is received on the skull. The blow arouses a certain set of involuntary operations which the subject is unable to control, as in the cases of vomiting, &c. Also, why giddiness or vertiginous symptoms usually follow when a blow is received on the region of the stomach; how the impregnated uterus influences the mammæ and stomach, causing increase of function and volume in the former, and morning nausea in the latter; how a diseased condition of the internal mucous membrane reacts on the common integument, and vice-versa. Even in the *osseous* structures, the law of sympathy prevails. A disease occurring in the upper extremity of a bone, gives rise to *sympathetic* pain at the opposite extremity. (Consult Hooper and Cooper, on hip-joint lameness.) And as regards the muscles and tendons, there exists a very marked sympathy, although in the mind of the pathologist this is not strange; for, anatomically considered, the tendons are neither more nor less than tendinous terminations of muscles.

Puncture of a tendon is often followed by great derangement of the nervous system and other pathological conditions, not unfrequently ending in trismus — locked-jaw. This is owing to the same law of sympathetic association just alluded to.

There is therefore a tendency in certain organs to become deranged or diseased in consequence of a malady locating in others, although they shall not always be identical in function.

This brief article must pave the way for another, which shall appear in our next, on the subject of "*Horn and Tail Ails.*"

CATTLE MURRAIN—NATURE AND TREATMENT.

[The public are indebted to the Esurgo Agricultural Committee, in Hungary, for the following report, made to the Imperial Agricultural Society of Vienna, on the mode of management and treatment of murrain, which has for twenty years been so successfully adopted in that district. It is translated from the German for the London "Sunday Times."]—*N. Y. Spirit of the Times.*

The murrain, termed also cattle plague, stomach distemper, overbile, and putrid fever, is known, partially, in some districts, as cattle dysentery, on account of the presence of alvine defluxions, continued to the end of the disease. The contagious and infectious character of the murrain is such, that the disease, having made its appearance in one animal, is immediately communicated to all others in its vicinity which are not, without delay, separated from it. On the contrary, an animal which has once had the disease is not liable to a second attack. In consequence of this contagious and infectious nature of murrain, the animal first attacked by it must immediately be separated from the healthy stock; it must also have its own attendant, and be provided with its own distinct fodder and drinking arrangements, apart from the other cattle. Cases, indeed, have occurred in which healthy cattle, tended by servants who had been in communication with diseased or dead animals, sickened of the murrain in the second, third, and fourth week. Also, the carcase should be buried with the excrements; and as the skins of the animals remain in a contagious and infectious state, they should, when not also buried, be steeped for a considerable time in water and sprinkled with quick-lime. In the Esurgo district, the carcases were indeed buried, but the excrements, being thrown into the dung-pit along with the other manure, constantly exposed to the action of the air, and not allowed to come into contact with the cattle, no evil consequences were the result. The skins were immediately fetched away by the leather dresser, to be at once put in hand, and steeped in lime-water. The opinion that dogs, cats, flies, or insects continually communicate the contagion of the disease from one animal to another, appears to be an ultra-idea, according to which, on the outbreak of murrain, no single animal of a district could escape, as all insulation of the diseased from the sound stock would be ineffective and fruitless. Previously to the introduction of healthy cattle into houses where diseased ones have been kept up, the fodder racks and mangers, as well as the brick or plaster work, ought to be well scoured with hot water; and the whole interior of the places, with closed doors and windows, be well fumigated with the vapor of chlorine; produced in the following manner:—

In iron pans, placed in several parts of the cattle-house, put a tea-spoonful of finely-powdered oxide of manganese, well mixed with the same quantity of common salt, and the whole moistened with water; then add oil of vitrol in small quantities. These vapors from manganese are not only cheaper but stronger than those produced by pouring oil of vitrol over chloride of lime. They must, however, be employed with moderation, otherwise they will inflict injury on the lungs. Such of the herdsmen's clothes, also, as are not washed with chloride of lime water, should be fumigated.

For the purpose of preserving sound cattle from the murrain, Dr. Pessina rejects all venesections and purges, as well as all strong stimulating medicines, and even setons. The preservative means, by which the Esurgo herds have been so well protected from t he murrain, consists in a *separation of the sound from the diseased stock, a daily weak fumigation of the cattle-houses with chlorine, wholesome food and water, and clean, airy houses, rather cool than hot, and not crowded with stock.* In the animals which died of the disease, the fourth stomach and the intestines were corroded and inflamed, the gall-bladder unusually large, and preternaturally distended with an accumulation of green watery bile; the mass of blood throughout the system was in a corrupt confluent condition; and in many cases particular internal portions were in a state of decomposition, all evincing an inflamed, corroded, or mortifying condition of the body.

The following three conditions, in the administration of muriatic acid for the cure of murrain, are essential: —

1. The acid must be given early at the commencement of the disease, for the farther the symptoms are advanced, the more difficult will become the cure; and should internal mortification have already set in, it will be too late to attempt it.

2. The acid must be given in strong doses, at short intervals of time, according to the prescription about to be recommended; and the greater the intensity of the murrain, the stronger the doses must be.

3. The acid must be unadulterated, strong, and fuming, and if of a weaker strength, it must be given in proportionately increased doses.

Dr. Pessina recommends the iron-impregnated muriatic acid, in preference to the simple acid; the former, however, requires certain indispensable conditions to be attended to in its administration.

SYMPTOMS.

1. *Period of Sickening.*—The animal gradually ceases to chew the cud or take food. It becomes melancholy, languid, and indifferent, frequently shaking its head, while its ears and horns be-

come alternately hot and cold. The pulse is small and quick; in many cases there is a cough, the dung is sparing, and usually dry; the urine is, in all cases, turbid and reddish in color.

2. *Period of Development.*—The fever and faintness increase; the animal sinks into a stupid apathy, even in the case of those which previously were the most frolicsome of the herd, but which now become insensible to objects around them, and heedless to their herdsman's call. There is frequently a rising at the stomach, and rejection of its contents, the eyes sink inwards, the animal begins to shiver, has pains in the under part of the body and the spine, and unwillingly submits to have the back stroked; a yellow mucus commonly flows from the nostrils. The animal continues to refuse the smallest amount of food, and lies down upon the straw, where it heaves and snorts, while it breathes heavily, quickly and painfully.

3. *Period of last Struggle.*—The respiration becomes more heavy, and the breath more fetid, very warm, and even hot. The animal is constantly on the stare, has often a violent thirst, and groans much. The under belly becomes distended, and then generally ensues billious watery secretions from the bowels, of a very offensive character, and frequently tinged with blood, after which the paunch collapses. The animal suffers, in general, from the commencement of the disease, only four or five days, seldom more than six or seven, till death, and in the last struggle breathes or rattles in the throat, with wide-set open mouth.

ADMINISTRATION OF MURIATIC ACID.

The fuming, unadulterated muriatic acid, is at the beginning of the disease, so certain a remedy, that of twenty head of sick cattle, scarcely one is lost. Also, in the second period of disease, more than one-half of them are saved. But in the third period, its use becomes less decided, at the same time that many animals are saved, even in this last extremity, by the administration of strong doses, and the acid is found preferable to every other remedy. Cows far gone in calf, can only be cured in the first period of the disease. As soon, therefore, as the symptoms of murrain, in any case, make their appearance, the cure must immediately be attempted. In case however, one or more animals in the same house have already been attacked, the others may be assumed to have caught the disease as soon as they lose their appetite or cease to chew the cud, and steps may be taken with these accordingly, without waiting for further symptoms. The muriatic acid must be given within short intervals, and in strong doses, diluted with a proper quantity of water, a difference being made according to the character of the

murrain, the degree of disease, the violence of the attack, and the strength and age of the animal. Even the season and the state of the weather must be attended to, in reference both to the degree of murrain and the curative influences.

The Esurgo farmers, following Dr. Pessina's prescription, gave a drench *regularly every hour* to each sick animal:

1. *Strong Oxen.*—Fifteen to twenty drenches, each composed of two quarts of water and three-quarters of an ounce of muriatic acid.

2. *Strong Cows.*—The same drenches, but with only half an ounce of muriatic acid.

3. *Two-year-old Cattle.*—Ten or twelve drenches, two quarts of water, with half an ounce of muriatic acid.

4. *Year-old Calves.*—Eight to ten drenches, one quart of water with a quarter of an ounce of muriatic acid.

5. *Sucking Calves.*—Eight to ten drenches, one pint of water, with half a quarter of an ounce of the acid.

These drenches, given neither cold nor hot, but in a luke-warm state, will effect the whole cure of the disease, if only at its commencement, or not too far gone, provided they be given *continuously*, hour by hour, either through the day, or the night. The more ill-conditioned the form of the murrain, the stronger will the dose be required to combat the evil.

After administering the foregoing amount of drenches, nothing further is to be given for the succeeding twenty-four hours than gruel-drinks, and the more the animal can then take of these the more certain is their recovery, as an animal never dies of the disease, when, after the muriatic acid drenches, it begins to take drink.

THE AUSTRALIAN HORSE.

THE horse is not indigenous to Australia, most of the indigenous animals of this singular country being of the marsupial class alone, of which the kangaroo is a type. At first, ho ses were exclusively imported from England, but they were found apidly to degenerate. The coasts of Chili and Peru were then tried for mares, and this step was followed by the production of a breed admirably suited to the country. Surefootedness and endurance are now eminently the characteristics of the Australian hor es, and their sagacity probably exceeds that of all other breeds. It is wonderful to see an Australian stockman at full speed after a drove of wild cattle, amid a mass of forest of which he nor his horse have the slightest knowledge. The ground beneath his feet is full of yawning chasms

in the earth, caused by the dryness of the climate, whilst the overhanging branches threaten him every moment with such blows on the head, as, if not avoided, would speedily put an end to his horsemanship. Under these circumstances, there seems to be a compact between horse and rider, that the horse shall look at all dangers beneath his feet, whilst the rider ducks between the overhanging branches; and between them they perform feats which few English steeple-chasers would face, though accidents are very rare.

A similar, and perhaps a still better, breed is rapidly being introduced into New Zealand. The breeding stock is the same, but from the greater favorableness of the climate, it is probable that this country will produce one of the finest breeds of horses in the world. The South American horses imported here are fresh from the prairie, where they have been caught with the lasso, and the operation of breaking them does not take place till after they are landed, several Chilian or Peruvian horse-breakers always accompanying the cargo for the purpose.

We have often witnessed the process of these persons in breaking the wild horse as he finds a purchaser from the ship. As it is curious, and may afford hints to English horse-breakers, we will describe it. A post is firmly fixed in the ground, to which a ring is attached. The horse is then brought to the post with a long halter, and made fast. The breaker takes his poncho — a large cloak worn by the South Americans — and ties it round the eyes of the horse, so as to blindfold him. The animal is then left to himself, and shortly begins to tremble with fright at his unusual helpless position. A profuse perspiration breaks out upon him, and if suffered to continue thus, he falls from the exhaustion of the nervous system caused by his fright. Before this takes place, a rude saddle is placed on his back, heavily weighted at the stirrups, and to this he quietly submits. Presently, when the animal is stupefied, the breaker goes up to him, and patting his neck and otherwise caressing him, in some respects soothes him, and this goes on till the horse exhibits signs of reliance on the breaker. By-and-by, the poncho is removed, and the lesson wished to be imparted has been learned, viz., — that of looking on man, who has relieved him from the fearful poncho, as his friend.

We have seen this lesson so skilfully administered, that the breaker has removed the weighted stirrups, and mounted on the bare back of the horse, which behaved with perfect docility. More generally, however, the lesson — always the same — has to be repeated, till the horse becomes perfectly docile, having learned to rely on man. And if afterwards kindly treated, there are no more docile horses to be found than these recently wild horses of the prairie. — "*Cecil.*"

THE AFFECTION OF THE HORSE.

RIDING in a stage, a short time since, over the hills of Western Pennsylvania, I asked the privilege of *riding out* with the driver. This, in pleasant weather, and in a strange country, is my favorite seat. Many think it a disgrace to sit out with the driver; but often I find philosophy guiding the horses of a public stage. If a passenger politely ask the privilege of riding out with the driver, it will be as politely granted; and no situation is so favorable for learning the local and most interesting history of the country through which a traveller is passing.

"That near horse," said I, "is a fine animal."

"Yes," said he; "if I had his mate, money could not purchase them. How old do you think he is?"

"Probably eight or nine," said I.

"He is twenty-four," said he; "I have driven him nine years on this route. His mate was just like him; they have grown up together from colts; always worked together, and stood in the same stable. No person ever appeared to think more of a friend, or even a child, than those horses did of each other. If one was absent for a night or day, the other whinneyed, and looked and moved about the stable, calling for his absent friend. Last winter," said he, "his mate died. Since then he has been constantly mournful and unhappy. He is constantly calling for his mate, when in the stable; and he will not permit any other horse to occupy the place of his companion in the stable. In all other places he is quiet and gentle, but will allow no one to be a companion at the stable where he has so often and so long enjoyed the society of his departed companion. But he is failing fast," said my friend; "he is evidently pining away with grief, and poor old Jim will soon join his mate in another, and I hope and believe, a higher state of existence."

"Why," said I, "do you suppose a horse has a conscious existence after death?"

"Certainly I do," said he. "I have the same evidence of it I have that I shall exist. Have I love? So has a horse. Have I affection, sympathy, memory, mind, reason? So has a horse. Call it instinct, if you please — I call it reason. True, a horse has not the organs of mathematical calculation; but many human beings are as destitute of them as a horse; and certainly they are not necessary to a future existence. It is *the moral* faculties that will survive the grave. In those," said he, "old Jim is pre-eminent. Does any one love his friend? Certainly not better than Jim does his. Does any one strive to do his duty? Jim is a

pattern of dutiful obedience. Does any one remember, and mourn for his lost loved ones? Poor old Jim is going down sorrowing to the grave, for his loved mate."

Here my companion brushed a tear from his eye, as he reined up to the post office in Mercer County, and delivered his mail. B. —*Prairie Farmer.*

A CASE OF PALSY IN A MARE.

COMMUNICATED BY CHARLES M. WOOD, V. S.

Mr. Editor:—On Thursday, February 26, 1857, I was requested by Mr. G. C. Ward, stable keeper, of this city, to accompany him to Ashburnham, and visit a mare then wintering in the country, and said to be sick of staggers. She had been unwell for several days, and had been treated by a horse-doctor in the neighborhood. As my employer had seen the animal the previous day, and described her symptoms pretty correctly, I soon prepared my "paraphanalia," and taking the cars we arrived at the farm house in about three hours.

Immediately on my entering the barn, (a part of which the animal had to herself, i. e. a pen about twenty feet by fifteen,) I saw my subject, an aged black mare. She was standing with the head down, and apparently in a state of somnolency. I approached her rather stealthily but she heard me, started suddenly, and fell backwards against the side of the building, where she stood, or rather sat, trembling, for several minutes. After recovering somewhat from her excitement, I approached her head, when she again started backwards, reeling and staggering from side to side of the building, against which she would lean for support. Thus with head and ears erect, eyes fixed, and a trembling of the fore extremities, she would remain for a short time; and, recovering from the paroxism, would look around with a vacant stare, and then attempt to walk to a box hanging in one corner, which served for a manger. With some difficulty she reached it. As she was in a roomy place I had no fear of her falling upon me. I again cautiously approached her, and being assisted by her owner and the man in attendance, I succeeded in getting her by the head. This excited her very much, and it was with no little difficulty we kept her from falling upon one of us. In a short time she was more calm; when I examined her, and the following symptoms were present:—

Pulse 74, and full (doubtless increased by the excitement in handling her;) pupils of the eyes dilated; visible mucous mem-

branes highly injected; bowels constipated; urinates frequently, and in small quantity. There was also a knuckling of the fetlocks, or dropping of the hind extremities, accompanied by a cracking or snapping sound in the joints; with a want of steadiness when moving, if alarmed, or otherwise urged to do so; and a peculiar tremor of the whole body, which, I inferred, arose from a loss of stimulus, very similar to "delirium tremens" in man.

At first sight of my subject, I recognized some nervous or paralitic affection. Her unsteady movements in her box, (i. e. the pen;) the partial cessation of nervous power in the hind extremities; her peculiar position, and the excitement, when suddenly aroused; the dilatation of the pupils; the glassy appearance of the eyes, and the apparent partial blindness. All these symptoms combined fully bore me out in the correctness of my diagnosis,—that I had a case of palsy to treat.

Upon enquiry, I was informed by the man who attended the horses that her appetite was good; that she was not "over thirsty," and that she had not lain down for several nights previous. That he first discovered her to be sick when on entering her stall, she pulled back in the halter, which she broke, and fell backwards upon the stable floor. He said he "thought she had a fit." She was afterwards removed into a part of the barn where I saw her, and that any unusual noise would produce the fits, as he termed them. That she would stagger round, fall down, and quickly rise again, and stagger to the side of the building for support. These paroxisms were frequent, and, to the man, alarming.

I gave the following medicine: Aloes, barb. ʒvi, hyd. chlorid ʒj —in a ball, and directed that she be well covered, to have bran mashes, and a plentiful supply of warm drink; and that no person be allowed to approach her but the man who had the care of her. Believing that I had given her all the cathartic medicine that was necessary, I left her, and sent up on the next morning the following medicines, with directions how to be administered; allowing her a more liberal diet than she had been accustomed to for many weeks previous to the attack of the disease under which she was then laboring. Each dose was separately prepared as follows: Strichnia gr. ii, pulv. ginger and gentian, of each ʒij, divided into two powders, one of which to be given in the morning and the other at night, increasing the strichnia a quarter of a grain morning and night, and given in like manner, i. e. in her mash, until it reaches six grains a day. When, at the end of ten days, she was apparently well, being restored to her usual health, energy and strength. She has continued well since, and has resumed her usual labor, as a livery or let horse in this city.

Remarks.—I would observe that the subject of this article is an animal of high nervous temperament, and was accustomed to perform daily labor in a livery stable, eating from ten to twelve quarts of oats and cracked corn per day. Was sent into the country, in November last, to winter on hay, and had but little exercise. Hence the disease arose from a peculiar morbid state of the brain and nervous system, sympathizing with the functional derangement of the digestive organs.

[A well managed case, and instructingly reported.—ED.]

THE MORBID STATES DENOMINATED PNEUMATOSES.

BY M. RAINARD.

[THIS Memoir will comprise four parts:—The first will treat of the physiologico-pathological generalities of gaseous fluids in the animal body during life; the second will have reference to pneumatoses, and, first of all, to pulmonary pneumatosis or emphysema of the lung; the third will inquire into pneumatosis of the alimentary canal, or typanitis; and, lastly, the fourth will investigate cellular pneumatosis, or external emphysema.]

ON THE GASEOUS FLUIDS OF A LIVING ANIMAL BODY, CONSIDERED IN THE LIGHT OF GENERAL PHYSIOLOGY AND PATHOLOGY.

M. Dumas, by a learned deduction from scientific facts, establishes on proofs furnished by the chemistry of organic bodies, that the primitive materials of organization are derived from the atmosphere. According to him, plants, like animals, spring from air, are real dependants of the atmosphere.

The vegetable kingdom, adds this learned chemist, is the grand elaboratory of organic life. Therein is it that vegetable and animal matters are produced at the expense of the air, and by a transmutation no less true than surprising, these matters, ready formed, pass from vegetable to herbivorous animals, and then to carnivora, which either consume or preserve them according to their wants. Lastly, either during the life of such animals, or after their death, these organic matters, in the ratio in which they become consumed, return to the atmosphere whence they are derived; and thus is formed the organic circle of organic life upon the surface of our globe.

The air contains or generates certain oxyde productions, carbonic acid, water, azotic acid, oxyde of ammonia. Plants, the veritable decomposers of these, absorb their bases, carbon, hydrogen, azote and ammonia, with which elements they compound the whole of the matters organic and organisable, yielded to animals. These

veritable apparatus for combustion, in their turn, reproduce carbonic acid, water, oxyde of ammonia and azotic acid, which once more depart into the air in order to regenerate afresh, through endless ages, the same phenomena.

To this picture, striking no less by its simplicity than its grandeur, we must add the undeniable influence of solar light, which alone can set in action this immense apparatus of the vegetable kingdom, whence is effected the reduction of the oxyde ingredients of the air to serve the purposes of the formation and repair of organization.

So that modern chemistry has traced with admirable profundity the important part performed by the air, the grand agent, this immense reservoir, which, by itself or through the agency of the substances contained in it, furnishes the primary elements of vegetable organization. Here, then, is the primary form of the constituent elements of living bodies (to wit,) the gaseous state. It is likewise through the same state that comes their end.

But it is not only at their formation, or at their decay, that their immediate principles become resolved into gas: the same thing happens in the course of their lifetime. Even in their very tissues gas becomes developed, and commonly as the product of secretion; only such products are not generated in any continuous or permanent manner, like carbonic acid gas exhaled by the green parts of vegetables: they form but under certain conditions and for certain uses, which we shall now consider.

M. de Blainville, in his General Physiology (vol. iii, p. 124), is of opinion that there are two kinds of principal gases: one to be accounted elementary, composing the integrant part of the organism, which exists constantly and normally; the other, as I have just remarked, secreted or exhaled by the tissues.

The elementary gases, observes this learned physiologist, enter into the composition of the body, are found in the cells of the tissues, and through them distributed over every part of the body. The physical characters of these elements become confounded with the anatomical character of the tissues, so that they are only to be found in the component solids of organization: we may add, *or in liquids*, since it is beyond all doubt that the blood contains among its molecules particles of aëriform fluid.

And gaseous products are, like other products of the body, according to the same author, substances differing in nature, disposed about the orgasm, oftenest upon the surface of the body, (meaning by surface not only the skin, but the different mucous inlets, all corresponding to the exterior as well,) but sometimes likewise within certain cavities and cells, without, in fact, composing part of their organism, and with many, without disturbing them, be extracted from them, or may be rejected by them.

Gaseous products appear to be the result of secretions analogous to those producing fluids. Like as the skin furnishes the perspirable matter, it produces likewise carbonic acid gas; and the mucous passages of the bronchi give issue not only to carbonic acid gas, but likewise to azote and to water. Glands also, it is probable, secrete gas with their habitual fluids; and the cellular tissue itself generates gas in the case of emphysema, as well as serosity, and so likewise do serous surfaces.

These general positions established, without stopping to inquire into the distinction prescribed by M. de Blainville, the order I propose to observe is this: —

In the first paragraph I shall exhibit the parts of the body in which gases are found, and this paragraph I shall divide according as they are met with; viz.:

(A.) In the Blood.
(B.) —— Cellular Tissue.
(C.) —— The Serous Membranes.
(D.) —— The Mucous Membranes.
(E.) —— The Skin.

In a second paragraph I shall treat of the physical and chemical characters of the gas.

In a third, of the physiological conditions of the production of gases, either as elements of the body, or as products, — 1st, of respiration; 2dly, of nutrition; 3dly, of digestion; 4thly, of absorption; 5thly and lastly, of the secretions.

In a fourth paragraph, of the gases belonging to the diseased state; of the morbid conditions under the influence of which gases are generated, and of the nature of disorders which they beget.

In a fifth and last paragraph, I shall offer some general considerations on the therapeutics of flatulent disorders.

I. *Of the Parts of the Body where Gases are found.*

The existence of gas has been demonstrated in the blood, in the cellular tissue, in the serous cavities, upon the surfaces of the mucous membranes, and upon that of the skin.

(A.) *Of Gases contained in Vessels, mixed or circulating with the Blood.*

Venous blood admits gases, as may be plainly proved, and in health too, and we know that they become accidentally introduced into it.

Commencing with animals occupying a low station in the scale of animal existence, the tench for example, we ascertain, by open-

ing the body of the animal under water, that there exists in its veins a notable quantity of aëriform fluid. And without a question, pulmonary absorption, in other animals, introduces gases into the venous system; and chemistry has taught us, that the blood flowing through this system is most greedy of it. Magnus, the Berlin chemist, has established, by his researches, that the blood has the power of dissolving a certain quantity of all gases in contact with it; but that, whenever this liquid, already charged with gas, come to absorb another, it can only do so by giving out a certain portion of the one first taken up; so that, when venous blood is agitated with hydrogen, a portion of this gas is dissolved, and a corresponding quantity of carbonic acid already existing in the liquid is disengaged; and when, instead of hydrogen, oxygen is made use of, an analogous result is obtained. The venous blood absorbs a certain quantity of gas, and liberates a quantity of carbonic acid nearly equivalent thereto.

Persons engaged in dissection know full well that it is by no means an uncommon thing to meet with gaseous globules in the veins of animals slaughtered in a state of health.

We also know that the insufflation of air into the jugular vein of a horse does not always produce ill consequences, much less death. Under these circumstances, without doubt, the air introduced becomes absorbed by the blood.

Is gas likewise present in arterial blood? Chemists think so, and M. Lassingen assures us positively of the fact. According to him, arterial blood, though in less quantity than venous blood, both contains acid gas and azote.

Brummer has proved the existence of gas in arteries by the following experiment:—After having produced a slow circulation by means of foxglove on a dog, he seized the aorta and by means of a couple of ligatures dammed up the blood flowing through it, closing the farther ligature first, instantly after the contraction of the ventricle. On opening after a little while this imprisoned portion of trunk, he discovered an aëriform fluid in it, of which we shall anon ascertain the composition.

We are told that every time we take a large quantity of blood away from an animal, we find gas in the arteries, introduced there to fill the void left by the flow of blood; a void which is not suffered to pervade the arterial parietes, on account of their not returning with sufficient rapidity to their natural calibre.

For a very long time it has been known that, after death, aëriform fluids occupy the place of the blood in the arteries, which has been propelled into the venous system. It was, indeed, from this discovery of Erudistratus that the arteries received the name they bear to this day.

The presence of gases in the sanguiferous system, and in the interstices of tissues, is never observed, according to M. de Blainville, in the fœtus, before it has respired. He assures us he has never seen globules of air escape from the body of the fœtuses, which he has opened under water. Notwithstanding this imposing authority, however, one is tempted to doubt the correctness of the assertion, when one knows that the blood of the mother and the waters of the amnion both contain gas.

(B.) *Of the Gases of the Generative Cellular Tissue.*

The presence of gas in the cellular tissue is abundantly proved by the formation of emphysema, at times very considerable.

We find them within the cellular tissue entering into the composition of organs, as well as in that which forms the adherent surface of serous and ligamentary membranes.

Underneath the skin, emphysema, in some cases, makes its appearance spontaneously, or without any appreciable cause: it then seems to be the result of a particular and entirely local secretion of this tissue. More commonly, however, the accumulation of sub-cutaneous gases depends upon some internal morbid condition, of which it is but the effect or a symptom. Fevers called adynamic and typhoid, and typhus fever, and the introduction through the skin of certain poisons, furnish examples of this.

But the presence of aëriform fluids underneath the skin, constituting emphysema, is at times purely accidental; it may depend upon a solution of continuity of the skin, permitting the introduction of atmospheric air into the subjacent cellular tissue.

As for the gas discovered within the parenchyma of organs, especially of the lungs, it no doubt owes its presence to respiration, which escapes through some laceration or preforation of some of the air-cells, previously dilated and softened by the action of inflammation.

It is the same with the gases found in the sub-pleural cellular tissue, and within the abdomen, in the peritoneal cellular tissue, as the consequence of rupture or preforation of the stomach and intestines.

(C.) *The Reservoirs and Sacs formed by Serous Membranes are in some cases, normally or from morbid causes, the Seat of Gaseous Collections.*

Everybody knows that certain fish, such as carp and perch, are provided with a reservoir called a swimming-bladder, placed at the posterior part of the visceral mass. This reservoir contains an aëriform fluid, which remains within it, and distends it, and thus

serves divers purposes to the animal. It is well known that this gaseous fluid is not directly derived from the lung. M. de Blainville assures us that the swimming-bladder has no communication with the buccal cavity. He has never been able to empty it through this passage, nor to force the gas out through the respiratory channels. Indeed, the analysis made of it by Messrs. Rumboldt, Provençal, and Delaroche, has shewn that it is not directly furnished by the air of respiration, but must be the product of a particular secretion.

The feathers of birds are, likewise, another example of air reservoirs having no communication with the respiratory passages; the air appearing to be introduced into them through absorption, at the period when the gelatinous matters disappear, which up to that time had filled the tubes.

We know that the air of respiration gains admission into the osseous system of birds of high flight. We also know that in in sects, which, like birds, have need of great specific lightness, there exists plenty of air, brought by the trachea, and afterwards distributed through the different parts of the animal, to place it in relation with the molecules designed for its assimilation.

Among fish, shell-fish enjoy the faculty, which to them proves a source of health, of filling their stomachs with air, and so of considerably augmenting the volume of their body, and, through an extension of their skin, facilitating the erection of the scales by which it is covered, and which remain depressed so long as the skin continues in inaction. It is likewise the atmospheric air which enables that frolicsome animal known by the name of *dolphin* to render himself light enough to swim upon the surface of the sea.—Blainville's *Physiologie Generale*.

Not even vegetables are without reservoirs containing air. Chemists have demonstrated that it is the fluid found in certain plants of the leguminous family, that fills and swells the pericarp at the period of maturity; and Gaspard has assured himself, in opening under water many seeds of the same family, regarded by physicians as full of wind, that they contain in their tissue a large quantity of atmospheric air.

In regard to collections of gas within the serous cavities, such as the peritoneum, the pleura, and even the pericardium, they are attributed, and with reason, to two different sources,—to the atmospheric air, and to an exhalation from these membranes. It is thus that we account for peritoneal tympanitis when there exists no mechanical lesion, viz., through the effect of physiological operation; but in a much greater number of cases they proceed from rupture of the stomach or intestine.

Pneumatosis of the pleura depends, most commonly, upon these

two latter circumstances, either proceeding from rupture of some air-cell near the surface, as in the case of emphysema; or else from the perforation of the pulmonary pleura, as the sequel of the softening of tubercles in communication with the bronchi. In this last state, the air proceeding from the lungs is constantly mingled with purulent and other matters.

(D) *Of the Gases of the Mucous Surfaces or Internal Tegumentary Tissues.*

Although we are assured of the existence of gaseous collections in all organs lined with mucous membrane, such as the Eustachian pouches, the lung, the alimentary canal, the uterus and the bladder, it is more particularly within the lungs and alimentary canal that they are frequently observed. We give the name of *pulmonary emphysema* to the collection of air within the lung, to that within the alimentary canal the name of *abdominal pneumatosis* or *tympanitis*. As for the Eustachian pouches, it is the same with them as with the air-cells, it being only when their orifices are obstructed through some morbid condition that gaseous fluids remain in them. We then find them mingled with muco-purulent matter, furnished by the lining of the reservoir, and commonly collected within the reservoir.

In the normal state, the stomach and intestines contain variable quantities of aëriform fluids; and it is their accumulation in any considerable quantity that constitutes the flatulent or pneumatose condition.

Gases spring from various sources. Some are the product of an exhalation going on from the free surface of the lining membrane; others are introduced through deglutition along with the food, to which they in a manner adhere; and there are some which are even contained in the alimentary matters, and which become disengaged during the process of digestion.

The fact of the exhalation of gas from the internal surface of the intestine has been placed beyond doubt by experimentation. Messrs. Majendie and Girardin, having caused a portion of the intestinal canal of an animal to protrude from its abdomen, containing nothing, and secured it with ligature before and behind, they have found shortly afterwards the imprisoned portion of gut filled with gas; and all the while the mucous lining perfectly healthy. Bernard Gaspard, who has made the same remark, informs us that this gaseous exhalation is even more active than at the time of digestion.

It is generally believed that this fluid is of use in continually preserving the form and dimensions of the intestines. If it be true, that the body of the fœtus prior to birth does not admit any gas into the cells of its tissues, as M. De Blainville has asserted, it is no less

certain that we have witnessed in the fœtus of several animals, while as yet *in utero*, a certain quantity of gas within the intestines, And M. Baumes (in his *Traite des Maladies Venteuses*,) assures us of having made the same remark in the human fœtus; whence he concludes gases to be a product of exhalation of the intestinal mucous membrane.

As to the gaseous fluids which find their way from without into the gastro-intestinal passages, they necessarily derive their source from the atmosphere, or from the food. It is evident that every time men and animals eat and drink, they must take into their alimentary canals a certain quantity of air mingled with the saliva. It is likewise evident, that the aliments themselves introduce into the same passages a certain quantity of atmospheric air, adhering to the particles of food, or penetrating them while under mastication. Lastly, some aliments there are which contain by nature, within their interstices, aëriform fluids, as the experiments of Gaspard shew. These are especially the vegetables belonging to the family legumina and crucifera, recognised commonly as being of a ventose nature.

Aliments of this description introduced into the alimentary canal, into the vast stomachs of ruminants, and the capacious intestines of horses, give escape to such an abundance of gas that, through their accumulation and their expansion from the heat of the situation, they are capable even of occasioning death from the impediment they cause to the respiratory and circulatory functions. The presence of gas, and its accumulation within the cavity of the uterus, in human medicine characterized by the name of *physometra*, is most rare with domestic females. The only cases in which we have been able to trace the presence of gaseous fluid in this reservoir are those, *mal a propos* named, uterine dropsy. We know that in this sort of cases evacuations take place from time to time of muco-purulent matters, which occasion remarkable sounds, caused by the presence of gases found mixed with them, and in which we very distinctly detect air-globules after their escape.

(E.) *Of Gases furnished by the Skin.*

The skin is also the seat of the continual exhalation of gas. With some animals, the frog especially, it is so abundant, according to Edwards, that it exceeds that which proceeds in the same animal from the surface of the lungs. We may be convinced of this by placing the living animal in water underneath the glass of an air-pump. As soon as exhaustion is effected, there escapes a certain quantity of aëriform fluid.

The body of a man placed in a bath and exposed to the solar light, becomes covered with a multitude of aerial bubbles, as do the leaves of vegetables under certain circumstances.

But M. De Blainville has remarked that we must not confound the gases of the skin with the matter of perspiration reduced to the state of vapor by the heat either of the body or of the atmosphere. Neither must we confound them with the atmospheric air, of which a thin layer reposes upon, adherent to, the surface of the skin, disengaging itself in the form of bubbles whenever the body is plunged into water.

However it may be, gases exhaled from the skin are never retained upon its surface, like those of the intestines. We have no means of obtaining them, save through artificial means.—*Journal de Medicine Veterinaire de Lyon.— Translated for the "London Veterinarian."*

THE UTICA ONE HUNDRED MILE RACE.

To the Editor of the Telegraph:

DEAR SIR,—Our attention has just been called to a communication written by A. A. Dalton, to the Springfield Argus, in which Mr. D., with little or no regard to facts, proceeds to state:—1st, The horses were stopped seven times on the journey, fed, and otherwise well cared for. 2d, These stops were made for no other purpose than to favor his horse. 3d, Mr. Taylor's horse was not *kept on the road*, and his sulky *pushed behind* him. 4th, The animal was fresh and active the day after the drive; was not *stiff nor sore* in any way. 5th, There is nothing "infamous" in the transaction: no abuse, no ill-treatment; the horses are fresh for another and *longer* and *harder* journey. Lastly: Mr. D. says, "I am not willing to allow to go *uncontradicted* any statement to the effect that a horse or any animal has been abused by me."

We know nothing of the article which led Mr. D. to pen the above remarks, but having *condemned* this match as both cruel and infamous, we now feel it our duty to defend the "right;"—to state the truth, and to the best of our knowledge, we will state nothing but the truth.

First, we know by the "reported time," that the horses were started and kept up at very fast, if not "full speed." They were not permitted to rest but a few minutes at any time or place, until arriving at Frankfort, here Mr. D.'s horse, in passing through an unusually deep and long snow drift, fell on his knees, after travelling a short distance, further indications of distress were apparent, and the poor animal, with heaving flanks, thumping heart and reeling gait, came to a dead stand. Mr. D. finding he could neither drive, lead, nor push him ahead, took him from the sulky, and

everybody, including Mr. D. himself, considered the match "decided." But about two hours after, news came down that Mr. Taylor's horse was expected to "give out" every moment, that men were leading, feeding and pushing him up the hills — and by this means had got him only about four miles. What did this humane man do? Tell them to stop their horse — he had been honorably and fairly beaten. Oh! no, nothing of the kind. He hitched up his dumb victim, and determined to "go through or die." But, alas, poor D., your defeat was like that of the hare by the tortoise, in "Æsop's Fable."

At the close of this match both horses were painfully distressed, Mr. D.'s especially so — and the assertion that his horse was not lame, stiff, or sore in any way, the day after the drive, is "absurdly untrue."

That the horses received all the *care* it was possible to give them under the *conditions* of the match, we cheerfully admit; at the same time we condemn this match as "infamous," and think the parties to it showed a total disregard of every feeling of "humanity to brutes," in making the match to come off at a season of the year when the chances were at least ten to one the roads would be almost impassable.

In conclusion, we wish to be "charitable" in this matter — and we admit that the man who openly boasts of his horse being "fresh for another, and longer and harder journey" than this one hundred mile race, certainly never did, never can, nor never will, know, when he ill-treats or abuses him.

Yours, &c., A. S. COPEMAN, V. S.

CARBONIC ACID GAS.

[Continuation of an Article on Ventilation, etc., from page 131.]

THIS gas is generated in the stomach and intestines of horses and cattle, as we have said, by putrefaction, or fermentation.

Some persons are disposed to believe that carbonic-acid-gas is so dense as to occupy no other space than beneath the common atmosphere, in close proximity with the earth, and floors of cellars and stables. This is not the case, for it has been discovered at the greatest heights which the industry of man has been able to penetrate. Saussure found this gas at the summit of Mount Blanc — a point of the earth mantled with perpetual snow — and Humbolt has recently demonstrated the presence of this gas, in air brought by M. Garnerin, from a heighth not less than 4,280 feet above the earth's surface, to which height he had arisen in an air balloon. From these facts we are led to infer that, notwithstand-

ing the current opinion regarding the great density of carbonic-acid-gas and the affinity that seems to exist between it and the earth's surface, it must enter into combination with the atmosphere, therefore, is chemically combined or artificially mixed, with the same. The following anecdote settles the point: —

Not long ago the king of Naples had a very fine elephant of enormous proportions, who, in a fit of rage, killed his keeper. The king ordered a charcoal fire to be kindled in the den of the enraged animal, by which means a large quantity of carbonic-acid-gas was generated, and the monarch of the world soon "bit the dust." This is the mode by which carbonic-acid-gas is artificially mixed with air.

Carbonic-acid-gas has less affinity for pure, than impure air. A person confined in a tight room with a pan of ignited charcoal, dies for want of oxygen; whereas, in the open air, the deleterious gas is diffused or diluted, and is thus rendered almost innocuous. Hence, we see the necessity for insuring a regular supply of *pure* air throughout the entire stable.

The atmosphere of a crowded stable is impaired by *re-respiration*; by cutaneous exhalation, and by the admixture of vapor from the manure reservoir. In our crowded cities, where land, comparatively speaking, is worth its weight in gold, it is impossible to institute *complete* sanitary regulations; yet, we have an "anchor of hope," in view of preserving the health of the habitats of these "*dismal swamps*," by a system of thorough ventilation.

Carbonic-acid-gas is formed at the expense of the oxygen of a given atmosphere, and under certain circumstances is again decomposed and forms oxygen gas. In view of illustrating this point, we introduce the record of an experiment made by a French chemist. He mixed twenty cubit feet of carbonic-acid-gas with the atmosphere of an air-tight room, and yet, strange to relate, thirty-five minutes afterwards he could not discover the least trace of the same.

It is evident, therefore, that the intent of nature is to establish an equilibrium between the above processes; that is to say, all the carbonic-acid-gas formed by combustion in the lungs of animals is decomposed, and results in oxygen. This is in accordance with the economical law of natnre, which never suffers anything to be wasted.

The process of pulmonary combustion in the lungs is somewhat analogous to the consumption of charcoal in a stove. The lungs may be compared to the stove. Carbon, or charcoal, is furnished by venous blood. The oxygen which is necessary to insure combustion in the lungs, passes through the delicate lining texture of the pulmonary cells, exhausts the carbon and eliminates carbonic-

acid-gas. The venous blood is thus deprived of its defiling elements and becomes oxygenized — acquires a carbonic hue. This is precisely what takes place in the common stove when charcoal is used as fuel. Charcoal in its crude state may be compared to venous blood, unfit to impart heat or vitality, until ignited or brought in contact with oxygen, then carbonic-acid-gas is evolved. The burning carbon acquires a red appearance, like arterial blood, radiating its life principle, oxygen, to surrounding bodies, while its deleterious properties, like those evolved from the lungs, mingle with the atmosphere and render it unfit for the purpose of respiration. Here lies the "*bane;*" the "antidote" is simple — consisting of nothing more than pure air.

Now, suppose for example, that we rate the number of respirations of a healthy horse at 17 per minute, and the consumption of air every time the lungs are inflated, at 80 inches; it requires 1460 cubit inches of air to vitalize the blood. So that in the course of an hour one pair of lungs will, at this low estimate, vitiate an immense volume of atmospheric air.

The fatal effects of breathing such an objectionable air as often pervades our stables, may be made the subject of a very simple, yet convincing experiment. Take, for example, a glass jar of about two quarts capacity, turn its mouth downwards, and place within it a live bird — a sparrow or robin. At first the imprisoned creature experiences no inconvenience, but in proportion as the consumption of oxygen and the exhalation of carbonic acid proceed, the creature begins to show symptoms of uneasiness; the respirations become accelerated, and it struggles, in view of obtaining fuel to support the fire of life; and in the course of an hour or so dies, convulsed, as if drowned or strangulated. Now, it requires no great stretch of the imagination to liken a tight barn or stable, having no provision for the exit of *impure*, and the admission of *pure* air, to the glass jar; the air-tight stable is to the horse, just what the latter proves to be to the bird.

If the results arising from the extreme vitiation of a local atmosphere be so destructive, we may be sure that those arising from every minor degree, although less obvious, are no less certain, in lapse of time, to produce unfavorable results.

[To be continued.]

THOROUGH-BRED BREEDING CATTLE.—It is estimated by Mr. Allen, the editor of the "Herd-Book," that there is at the present time not less than six thousand thorough-bred short-horn breeding cattle in the United States and the Canadas, the aggregate value of which is upwards of $1,000,000.

ESCUTCHEONS.

When Guenon's theory of determining the value of milk cows, by the growth of hair on its thighs, above and adjacent to the bag, was first introduced, the idea was received with a good deal of scepticism. Time has wrought changes. At a late convention by the Legislative Club of the State of New York, one of the speakers gave the evidence in relation to Guenon's theory:

"M. Guenon, a French writer, has discovered certain indications which he claims to determine the milking qualities of cows. This he calls "escutcheons," being the hair which grows upwards, (contrary to the general rule, on the udder, thighs and hinder part of the body. It is easy to distinguish the escutcheon by the upward directions of the hair which forms them. I cannot go into detail here upon the system, but would refer to the work of M. Guenon itself. But to show that it is esteemed worthy of notice, I will allude to the testimony of those who have given attention to it."

Mr. John Haxton, in a work published in 1853, entitled, "How to choose a good Milk Cow," in reference to the indication of a good milk cow, p. 178, says: "The writer has examined many hundreds of dairy cows in Britain, and the conclusion arrived at in regard to Mr. Guenon's test of judging of the milking properties of a cow, by the development of the *ecusson*, is that, in a very large majority of cases, it is borne out by facts." In a London dairy, belonging to Mr. Riggs, 31 Edgeware road, where about 400 cows are kept, and where nine-tenths of them are far above average milkers, the *development* or *upward* growth of the hair on the posterior part of the udder, thighs and perinæum, was too remarkable to be accounted for by accidental causes. As well might it be said that all other tests, such as length of head, softness, and flexibility of skin, and wide quarters, were accidental, and had no reference to the milking properties of a cow. When a phenomenon presents itself over and over again, accompanied in a majority of cases by certain results, we may be certain that it is not accidental, but natural; and while we may be unable to account for these results upon satisfactory grounds, it is neither philosophical or prudent, to deny or ignore the connection between the one and the other, and thus to forfeit the advantages which the fact itself is calculated to afford."

The late Mr. Phinney, of Massachusetts, a very careful and critical observer, made examination of a large number of milk cows, and found in a majority of them that were good milkers, these developments well marked. He conversed with a large number of intelligent gentlemen when he was abroad in 1851, in Great Britain and France, and found but one opinion as to the general character

of the animals which possessed these developments; and so far as we have learned the views of gentlemen in this country who have given attention to this subject, the result has been the same.

"I think it may with safety be affirmed, that this 'one principle' is established—that all things being alike, as regards shape, texture of skin, &c., cows with well developed escutcheons, will, in a large majority of cases, be found to be the best milkers, and above an average; while, on the other hand, those with very small escutcheons, will be found under, or at most, not above an average in their milking properties.

"In calves, the escutcheons show the shapes which they are afterwards to assume. They are more contracted only because the parts which they cover are slightly developed. They are easily perceived after birth, but the hair which forms them is long, coarse and stiff. After this hair falls off, the escutcheons of calves resemble those of cows, though of less size. This will enable the farmer to save such calves as will probably serve him as good milkers.—*Farmer and Planter.*

CASE OF MAL-FORMED LIMB IN A COLT.

Editor of the American Veterinary Journal:

DEAR SIR,—If the following described case is of sufficient importance, you are at liberty to give it a place in your invaluable monthly.

Truly, one of your subscribers,

B. E. BROWN.

On the morning of April 30th, a valuable mare of mine gave birth to a colt at eleven and a half months. As this mare had, on two previous occasions, brought twins, the *first* time when not watched, saving one of them, and the second time by being attended to saved both. I deemed it advisable to look after her at the time of foaling.

On the delivery of the colt, in disengaging it from the membranes, or as is frequently termed the "*blanks*," I discovered that the right fore leg presented a deformity by being bent at right angles at the pastern joint.

Feeling somewhat disappointed at the result, I gave myself no further trouble in assisting the new comer to obtain nourishment, saying to myself, as the mare appeared to be doing well, "Now, Mr. Colt, you may take your chances, if you can get up and suck, well; if not, all the better." As it was about 2 o'clock, on retiring to my bed, it occurred to me that this might be a case of what is termed in the human subject, "club foot," and that by the operation of

tenotomy the limb might be straightened, and the appropriate means applied for keeping it in place. But, on my next visit in the morning, finding Colty up and smart, walking on the pastern joint, or rather the end of the metacarpal bone, the foot doubled square-under toward the other limb; I perceived that instead of this being caused by contraction of the tendons it was in fact an anchylosed joint, entirely incapable of being straightened. What added to this *lusus* was, the attachment of a miniature hoof about half-way between the pastern joint and true hoof. With this deformity, shortening as it did the limb, to the amount of three inches, still its locomotive powers were sufficient to enable it to follow the dam when walking about.

In every other respect this was a promising colt, out of a son of Hale's "Green Mountain Morgan." But as a specimen of the *genus equus* can hardly be worth preserving without at least four *tolerable* legs, and as I have never been able to discover that the command "Thou shalt not kill," referred to any thing else than one class of bipeds, I *allowed* there was but one alternative in this case.

Mexico, Oswego Co., N. Y., May 18th, 1857.

THE COMPOSITION OF MILK AT VARIOUS TIMES OF THE DAY.

Professor Boedeker has analysed the milk of a healthy cow at various times of the day, with the view of determining the changes in the relative amount of its constituents. He found that the solids of the evening's milk (13 per cent.) exceeded those of the morning's milk (10 per cent.); while the water contained in the fluid was diminished from 89 per cent. to 86 per cent. The fatty matters gradually increase as the day progresses. In the morning they amount to 2.17 per cent., at noon to 2.63 per cent., and in the evening to 5.42 per cent. This fact is important in a practical point of view; for while 16 ounces of morning's milk will yield nearly half an ounce of butter, about double this quantity can be obtained from the evening's milk. The casein is also increased in the evening's milk, from 2.24 to 2.70 per cent.; but the albumen is diminished from 0.44 per cent. to 0.31 per cent. Sugar is least abundant at midnight (4.19 per cent.), and most plenty at noon (4.72 per cent.) The percentage of the salts undergoes almost no change at any time of the day.—*Henle's Zeitschr. fur Rationelle Medicin.—Edinburgh Medical Journal.*

A HORSE STORY.

The *State Journal* says, that an accident, singular in its results, occurred during the passage of the cars down from Folsom, on Wednesday last. As the train approached Patterson's, a valuable mare, heavy with foal, attempted to cross the track a short distance in front of the advancing cars, and was overtaken, run over, and instantly killed, the flesh being torn completely off one side. The train was stopped, and it was ascertained that no damage had occurred to anything except the unlucky mare. At the suggestion of a gentleman present, to whom the condition of the animal was known, the "Cæsarian operation" was performed, and the foal, with little difficulty taken from the side of the mare. The informant, who, the *Journal* says, is perfectly reliable, saw the colt yesterday, in the possession of Mr. John Waters, to whom the mother belonged at the time of the accident. The little creature is quite lively, eats well, and bids fair to make a 2.40 nag, having commenced life, most certainly, in a fast manner, born by steam, and before its time.—*California Farmer.*

THE $800 TROT.—The owners of "Young Morrill" have accepted the challenge of the "Ethan Allen." "Young Morrill's" owners, in their card in the Manchester *Mirror*, say they do not wish to make but one match next fall, and that match they desire to make with the "Ethan Allen." Accordingly they accept the challenge, viz.: Ethan to go to wagon, and driver weighing three hundred pounds; Young Morrill to harness; mile heats, best three in five. The races to come off sometime the latter part of next October, over the Union Course, Long Island. The money is to be put up by the 1st of June, and "Young Morrill's" owners name $4000 as the sum they are willing to risk on their horse. New Hampshire is now fairly matched against Vermont, and both horses will be called upon to do their best.—*Boston Journal.*

YOUNG MORRILL AND ETHAN ALLEN.—New Hampshire is not "fairly matched against Vermont" in the above trot. "Young Morrill" is a Vermont horse, raised from three generations of Vermont horses, and has always been in this State until the present season. The trot will be worthy the attention of all lovers of horse-flesh, especially as both the contestants are Vermont Morgans, although of different branches. Their grandsires were brothers.—*Brattleboro' Phœnix.*

THE CAMEL EXPERIMENT.

A Washington paper has an interesting item relative to the Camels in Texas, based or recent information. The animals are doing well, the experiment of their acclimation having thus far proved successful. Those first imported are now transporting supplies between St. Antonio and Camp Verdo. "Three little ones were born in March and are thriving, and five or six more births are expected. From the reports of the condition of the animals, at present, and through the eleven months that the first importation have been on the Continent, we may regard all doubts as to their acclimation dissipated, and that so much of the experiment is a *fixed fact*.—The only remaining intermediate point is the character of the stock that may be produced. For this time will be required. The officers in charge are, however, sanguine, that it will fully equal that of Asia Minor and Africa, and may, by proper attention, be more highly developed."

Truly, "the Camels *have* come." How long will it be ere our Texas friends offset our Horse shows with exhibitions of Camels—trials of speed, carrying weight, &c. ?—*Moore's Rural.*

Loss of Hogs by Disease.—A writer in a Cincinnati paper, giving an idea of the number of hogs that have died this season by cholera, states the losses at the following places, thus: In Ingraham's distillery, from the 1st of August to the 24th of October, 1285. At the distillery in Pittsburg since the 18th of October, 2566. Mr. Platte, of Rising Sun, lost 500; Mr. Slumer, of Covington, 500; Messrs. Gaff, of Aurora, 4,546. At New Richmond, since the disease made its appearance, 10,435 have died. Making an aggregate, as far as accounts have been received, of 60,000 hogs, valued at $300,000, and when fattened would have been worth $650,000.

Ages of Mr. Ten Broeck's Horses.—A dispute having arisen in regard to the age of one or more of the American horses now in England, their owner has had them examined by Professor Spooner, of the Royal Veterinary College, and William Mavor, a member of the same, and it is their opinion that "Lecompte" is seven years old, "Pryor" five, "Pryoress" four years. A lengthy communication on the subject, from M. T. B., appears in the "*Spirit of the Times*," and in "*Porter's Spirit.*"

The above horses are entered for the "Goodwin Cup," which is of the value of $1,500.

ITEMS FOR OUR SUBSCRIBERS.

An article on the geometrical proportions of "Eclipse," is reserved for the July number of this journal.

The Eclectic College of Medicine. — The advertisement of this flourishing College appears in this number. The Faculty are experienced teachers of the progressive order. Professors Buchanan, King, Cleveland and St. John, are distinguished authors, and the whole of the Faculty have contributed largely to the medical literature of the day, and are now engaged in the publication of the College Journal; a work of considerable merit.

Subscribers failing to receive the "Journal," will please notify the Publisher. We are under many obligations to our friends for procuring new subscribers, yet hope they will not relax their efforts; for the Journal is surely destined to work a reformation in the treatment and management of live stock, and form public opinion on the subject of Veterinary Science and on the usefulness of the *educated* Veterinary Surgeon.

A Chance for the Enterprising Husbandmen of Maine, in View of Improving their Breeds of Horses. — Our friends in Maine will perceive, on our advertising pages, that the publisher of this journal has a couple of very promising stallions now located in Saco, Me. He has selected them without regard to cost, and now advertises their services at the lowest possible figure — which is probably *thrice* as much as is often demanded for some prancing, spavined, or ringboned studs, with popular names, which are now in some parts "as thick as bees," — (their services offered dirt cheap;) their progeny not worth the powder and shot that would kill them. Mr. Thompson merely askes a living price for the services of his horses; and if they do not leave better stock than the majority of *cheap* studs, he will agree to withdraw from this field of enterprise.

We shall, in our next, furnish the reader a selection from Mr. Varnel's work, which was announced in the March number.

MISCELLANEOUS.

Promising Colt. — During a recent visit to Southboro' we had the pleasure of examining an excellent three-years old entire colt, the property of Mr. E. Fay. His sire was the well known horse, "Empire State," whose fine qualities re-appear, in this case, with remarkable accuracy. Mr. Fay has adopted a wise method in the matter of educating this colt. He is not broke to harness yet, behaves admirably, and is controlled entirely by the voice of his master. Patience and kindness were the *whip* and *spur* which accomplished the feat. We advise those who are engaged in the practice of breaking and training colts, to use more moral suasion and a little less whip, and never resort to the vulgar habit of using profane language, for that will sometimes shock even the sensibilities of a horse.

We are indebted to H. P. Bryam, Editor of the "Valley Farmer," for a copy of the "Weekly Courier," published at Louisville, Kentucky.

Good Quarters, and Pasturage for Horses. — Mr. Nixon Ball and Son, of Southboro', Mass., have one of the best stables in this country, their business is to winter, pasture, rear and break horses. With a good stable, plenty of fine pasturage, and under the care of two experienced and humane men, horses entrusted to their care, are sure to do well. It may benefit some one to know that there is such an establishment so near Boston.

NITRATE OF POTASH IN LARGE DOSES IN ASCITES WITH ANASARCA.—"We read in the Rev. de Ther. Med. Chir. (Jan. 15th, 1857,) an interesting account, translated from the Chronica de las Hospitales, of a case of a man who, in eighteen days, was entirely relieved of ascites and anasarca by the use of large doses of the above remedy. On the first day of treatment, which was, as near as we can ascertain, about six weeks from the coming on of the dropsy, and upwards of seven weeks from the beginning of an attack of remittent fever which preceded the dropsy, the new medical attendant, M. Angulo, directed for his patient two drachms of nitrate of potash dissolved in a saccharo-mucilaginous vehicle, which was to be taken in a period of thirty hours. On the first day of treatment there was a slight increase of the urinary secretion; the stomach bore the medicine very well. On the following day the nitre was increased to rather more than three drachms. The patient had some alvine evacuations; the urine was more abundant than on the preceding day. On the third day the patient was much better. At his request the same medicine was given, the doses of which were successively raised until, on the eleventh day of treatment, they had reached eleven drachms two scruples, or nearly an ounce and a half in the twenty-four hours. On the twelfth day the body had resumed its customary size, after an excessive urinary discharge, which had supervened on the fifth, sixth and seventh days.

In proportion as the serous effusion was absorbed, the appetite and strength were restored, and dating from the seventh day's administration of the nitrate of potash, the patient was able to walk about his room. At the time he came under the charge of M. Angulo, this man was unable to leave his bed, and so great was the anasarca and swelling of the eyelids that the globe of the eye was no longer visible.

The regimen consisted of preserved fruits, baked apples, panada, vermicelli soup, a little good wine, and at a later period a more abundant alimentation. After the twelfth day the dose of the nitrate of potash was diminished, and on the nineteenth its use was abandoned. On the 8th of January, 1856, or seven weeks and two days from the beginning of the nitre treatment, the man was so entirely restored to health, that he resumed his business on the road in trading in wine, which he transported by mules.

[The above narrated case is the more instructive, as nitre was the only remedy employed; and taking into consideration the state of the patient before it was prescribed, and the prompt change produced by this medicine, and the complete removal of the disease under a continuance of its use, we cannot resist the inference that it was the undoubted and sole curative agent. We may draw also another inference from a knowledge of this case, viz: that much yet remains for us to learn respecting the therapeutic nature of many medicinal substances with which we think we have a familiar and intimate acquaintance; and that, as our French contemporary justly observes, the art of handling them, if we may use the expression, will be richer in results than any physico-chemical speculations that may be indulged in."]—*Medical Chirurgical Review.*

[This agent when administered understandingly, in veterinary practice, is probably as valuable as when used on the human subject.—ED.]

AIR POISON.—People have often said that no difference can be detected in the analyzation of pure and impure air. This is one of the vulgar errors difficult to dislodge from the public brain. The fact is, that the condensed air of a crowded room gives a deposit which, if allowed to remain for a few days, forms a solid thick, glutinous mass, having a strong odor of animal matter. If examined by the microscope, it is seen to undergo a remarkable change. First of all, it is converted into a vegetable growth, and this is followed by the production of multitudes of animalcules; a decisive proof that it must contain organic matter, otherwise it could not nourish organic beings. This was the result arrived at by Dr. Angus Smith, in his beautiful experiments on the Air and Water of towns; where he showed how

the lungs and skin gave out organic matter, which is in itself a deadly poison, producing headache, sickness, disease or epidemic, according to its strength. Why, if "a few drops of the liquid matter, obtained by the condensation of the air of a foul locality, introduced into the vein of a dog, can produce death with the usual phenomena of typhus fever," what incalculable evil must not it produce on those human beings who breathe it again and again, rendered fouler and less capable of sustaining life with every breath drawn? Such contamination of the air, and consequent hot-bed of fever and epidemic, it is easily within the power of man to remove.—Ventilation and cleanliness will do all, so far as the abolition of this evil goes, and ventilation and cleanliness are not miracles to be prayed for, but certain results of common obedience to the laws of God.—*Dickens' Household Words.*

INTERMARRIAGES.—It is a singular circumstance that the Rothschilds intermarry in almost every case, says the Boston Bee. Yet the Jewish race has lived in violation of this law, for thousands of years, without experiencing the effects which are supposed to follow it. In no nation in the world has intermarriage been so general and so long continued, and yet no people exhibit so many shrewd qualities.

STOCK BREEDING COMPANY.—We learn that Dr. G. Sprague, late Secretary of the Ohio State Agricultural Society, is largely interested in this company, whose extensive establishment is located at Bear Grove, Butler Co., Iowa. In a letter just received from Dr. S., he writes as follows:

"I may write you for publication when matters of interest transpire. I will now mention a significant fact, which you can use if you see fit. In moving our horse stock west, in February last, we found that such of our colts as were in part of "Black Hawk" or "Morgan" origin, stood the trip by *cars*, or *road*, 100 per cent. better than those of other blood,—were less injured and reduced by distemper, and recovered from this much sooner than the others, eating better, during illness, and losing less of *substance*. Now that they are here they do best on the native hay, and can trot and run without pain, maintaining their wind when other colts fag and vainly attempt to keep up in the race. Their thick coats and round barrels, accompanied by strong appetites and stronger digestion, make them valuable for this prairie country, where the winds blow sharp and feeding stations are, in some cases, far apart. S."

STATISTICS OF MUSCULAR POWER.—Man has the power of imitating almost every motion but that of flight. To effect these, he has, in maturity and health, sixty bones in his head, sixty in his thighs and legs, sixty-two in his arms and hands, and sixty seven in his trunk. He has also four huudred and thirty-four muscles. His heart makes sixty-four pulsations in a minute, and therefore 3,840 in an hour, and 92,160 in a day. There are also three complete circulations of his blood in the short space of an hour. In respect to the comparative speed of animated beings and of impelled bodies, it may be remarked that size and construction seem to have little influence, nor has comparative strength, though one body giving any quantity of motion to another is said to lose so much of its own. The sloth is by no means a small animal, and yet it can travel only fifty paces in a day; a worm crawls only five inches in fifty seconds; but a lady-bird can fly twenty millions times its own length in less than an hour. An elk can run a mile and a half in seven minutes; an antelope a mile in a minute; the wild mule in Tartary has a speed even greater than that; an eagle can fly eighteen leagues in an hour; and a canary falcon can even reach 250 leagues in the short space of sixteen hours. A violent wind travels sixty miles in an hour; sound, 1,142 English feet in a second. —*Burke.*

ANTIDOTE TO LEAD AS A POISON.—M. Melsens has found the iodide of potassium the most effective antidote to poisoning by lead compounds; the soluble iodide of lead being eliminated from the system by the kidneys.

LOSS OF STOCK IN TENNESSEE.—The Chattanooga Gazette of Saturday says: "The unusually severe and protracted winter has caused a great loss to stock raisers. There has not been feed enough in the country to keep stock in living order, and what little could be obtained at all by those who were out, was at ruinous prices. We hear of cattle dying all over this country from starvation. Even in sections of the country where there is scarcely ever a failure to have an abundance of grain and forage laid up, they are suffering very material losses from their cattle dying. A gentleman from lower Sequatchee, when in this city the other day, remarked that one of his neighbor farmers, who had a large number of cattle, was losing them constantly—that when he left home, his neighbor was 'a day and a half behind skinning.' The mortality is not over. As soon as the grass gets up so that the cattle can get enough of it, those that are now very poor will die under its weakening influence."

AN absent wife is here called upon to return to "bed and board:" "Jane, your absence will ruin all. Think of your husband—your parents—your children. Return—return—all may be well—happy. At any rate, enclose the key of the cupboard where the whiskey is."—*Laurensville Herald.*

THE Auburn "Advertiser" says—"A man residing in Moravia, somewhat distinguished for severity, and known as rather a hard man, in order to gratify his penchant for blood, braded a wire into the lash of his whip with which to cut his horses. His little boy besought the father again and again not to do it, but he was inexorable. He finished the cruel instrument, but at the very first stroke at his horses, he hit a buckle or some hard substance, breaking off a small fragment of the wire, which flew back and struck the eye of the cruel man, and put it out."

[This was terrible punishment, yet we have no tear of sympathy for so cruel a man. We despise a coward, and contend, that he who wantonly and cruelly torments one of nature's menials, is just the creature here named.]—ED. V. J.

MORE RACING.—The Albany "Statesman" says that the Taylor and Dalton horses are again matched for two more tests of speed and endurance. A twenty-five mile race for $1000, to come off between the 1st and 10th of June, on any track Dalton may name. The stipulations are that Dalton shall drive his horse, and that Andrew Shehan—owner of the Taylor horse—shall drive his. The second race is to be fifty miles, for $1000. Shehan is to name the track on which the test is to be made previous to the start being given at the 25 mile race.—*Spirit of the Times.*

SUGAR IN CONSUMPTION.—A gentleman in Louisiana bought some consumptive negroes from a dealer in Norfolk, and placed them on his sugar plantation. They ate plentifully of the cane, but more especially of the young shoots. The slaves who had been thin, weak, and sickly, soon became strong, robust and hearty, and in a short time all traces of disease disappeared. The "Argus" learns that this planter has a standing order at Norfolk, for negroes who have the symptoms of consumption, and of course expects to get them at a reduced price. If Northern consumptives are inclined to the same treatment, they may possibly have essential relief, if not a perfect cure.—*Phila. Medical Surgical Journal.*

"I say, Bill," exclaimed cabroilet-driver No. 1, "this is bad work, this garotte, "Bad work!" responded cabroilet-driver No. 2, "uncommon good work, I finds its all the timid old gents as used to walk 'ome of a hevenin', stead of that now they stands a chance of bein' garroted, takes a cab."

MORGAN EMPIRE.

BY EMPIRE STATE.

The property of John Leet, Esq., of Roxbury, Mass. now standing at Claremont, N. H.

THE AMERICAN

Veterinary Journal.

DEVOTED TO THE DIFFUSION OF VETERINARY KNOWLEDGE.

Edited by GEORGE H. DADD, Veterinary Surgeon.

Published by S. N. THOMPSON & Co., 97 Union Street.

PRICE, ONE DOLLAR PER ANNUM.

VOL. II. BOSTON, MASS., JULY, 1857. NO. 7.

HORN-AIL.

Persons who are in the habit of prescribing for sick cattle, and have never made themselves acquainted with the sympathetic relations existing in the animal economy, to which we referred in a preceding article, are liable to commit errors in diagnosing disease, and, when questioned regarding the seat of the same, they avail themselves of a popular error, and inform the owner who has unwisely placed the sick animal in their charge, that he or she, as the case may be, is the subject of *horn-ail* or *tail-ail*.

The idea, in almost all cases, is so supremely absurd that if any thing other than a living animal were the subject of the barbarities which, according to mistaken notions of cure, are almost sure to follow, we should be disposed to burlesque the whole affair, and, notwithstanding all our sympathies being in favor of the brute, we are not sure that we shall be able to maintain our gravity beyond the next half dozen lines.

In our opinion, *horn-ail*, in ninety-nine cases out of a hundred, exists only in the imagination of the individual who allows error to overcome his better judgment, and thus supplants his reasoning faculties; or else the individual is in the predicament just referred to,—incompetent to form a correct opinion.

No mention (only to ridicule the subject,) is made in any of our standard veterinary works of these imaginary diseases, and if educated veterinary surgeons were as numerous here as in England or France, and had the same means to reach the ear and the under-

standing of our husbandmen, the latter would soon be convinced of the absurdity which we are here describing, and consequently be induced to protect their animals from that species of *cruel* quackery, which would refer all their aches and diseases to horns or tails, and which sanctions the boring of the former, and curtailing, or docking the latter.

The pathological conditions on which the absurd theory of *horn-ail* seems to be founded, are heat or coldness of the horns; these are the principal and, in fact, only symptoms which the *unlearned* expounders of a popular malady have given us; but every one ought to be aware that variations in the temperature of a part, so inferiorly organised, as the horns are, is no criterion as regards the nature of the disease, which occasions in this vicinity merely an increase or decrease of temperature. The actual disease which occasions a loss or increase of temperature of the external surface of the body, horns included, may be, and often is, located in either the brain, stomach, or bowels, and at other times is the result of local congestions of the lungs and other parts—mere effects—the results of pre-existing disease; therefore, we contend that the term horn-ail, when used to express the condition of parts sympathetically affected or aroused, throws no light on the true nature of the disease under which the animal labors.

We shall contend that neither the augmentation nor *decrease* in the temperature of the horns constitutes *actual* disease of the same; but may indicate a loss of equilibrium in the circulation of blood. If the horns are at fever-heat, and the surface of the body be cool, we know that the brain or its membranes may be actively or passively congested; on the other hand, should the horns and the extremities be cold, it goes to prove that the animal is the subject of internal congestion or disease. But why locate it in the horns, when in the animal economy are found so many hundred parts, sections, and divisions, of parts, more important, sensitive, and vastly more august in preserving vital integrity, than the *horns?* The variations in the temperature of the horns, and other parts of the body which the horn-ail theorists have neglected to notice, enter into a class of symptoms from, and by means of the same, an educated surgeon makes up an intelligent and correct diagnosis; and, consequently are only of value, in point of fact, in so far as they go to show the actual state of the *whole* animal mechanism.

The proposition admits of the following appropriate and convincing illustration. A man is attacked with acute disease of the liver, and almost always experiences a pain in the right shoulder—a purely sympathetic affection. Now, it would be very ridiculous for a physician to overlook the diseased condition of the liver, and merely prescribe for the *sympathetic* shoulder-lameness, and call it

"*shoulder-ail.*" Such ignorance is calamitous, but does not often occur when the educated physician is employed; otherwise, it does, and many such cases are quite fresh in our memory. Now, instead of prescribing local agents, as some have done, in view of mitigating sympathetic local pain, would it not be more in accordance with reason and science to administer medicinal agents, such as are calculated to restore the liver to a physiological condition?

A man who thus *ignorantly* prescribes, falls into the same error with him who would refer all diseases of neat stock to their horns or tails, merely because the parts are not in their natural or physiological condition, owing, as we have said, to *actual* disease seated elsewhere; thus the symptoms are mistaken for the disease, and the treatment, in so far as boring, sawing off horns, and curtailing the caudal appendage is concerned, is highly injurious, barbarous, and, in these enlightened times, deplorable.

It requires no argument to convince many men that horn-ail is a very prevalent disease, for the false doctrine has been promulgated, and has received attention from men whose domains extend from Maine to California. The error has been sown broadcast, and has acquired such hold on the minds of some that it will take many years to root out the evil. One writer on this subject, believing that *horn-ail* is a sort of national disease, recommends the *barn-yard* faculty, (for none other will hearken unto his exhortations,) to carry a gimlet in their pockets, so that they may be prepared to combat this all absorbing and fashionable, yet nonsensical malady.

We have had several opportunities for conducting autopsies on the bodies of cattle said to have died of horn-ail: among them were several cases of softening of the brain, and this is a feature, as we shall show more conclusively hereafter, present in many of the so-called cases of horn-ail. Softening of the brain is a disease of so grave a character that any morbid symptoms attending the same, as local heat or coldness of horns, might compare in the ratio of a mole-hill placed beside a mountain.

Softening of the brain is the ultimatum of a grave disease occurring in that organ, and if the owners of live stock are disposed to believe that *horn difficulty* is the most preponderant and alarming, and they can sleep soundly in the belief that no danger threatens, then "if ignorance is bliss, it is folly to be wise." We cannot endorse this sentiment, however; for in this day of intellectual maturity, no one has a right to be a dunce in his chosen profession, nor a fool, to thwart the intentions of those who would substitute light for darkness.

Softening of the brain is always preceded by *acute*, and subsequently, *chronic* inflammation of the same or its investing tunics, and constitutes the last stage of diseases so that the days of such a subject are numbered, and the man of gimlet and ignorance

armed with his munitions of warfare, treats the disease at long odds; he pockets the fees but loses the *case;* his patient, which a too confiding owner has foolishly permitted him to practice his cruelty and ledgerdemain on, dies, and he knows not the why nor the wherefore.

But in order to convince our readers and the public of the follies of the above proceedings, we shall now introduce testimony of a reliable character, showing the condition of the brain, &c., in a case which was called horn-ail, and treated as such. We published the same paragraphs some three years ago, but they will bear and need repetition. The matter is taken from the *Southern Planter:*—

"After death, examined the head. Crest between horns perfectly hollow; all the little divisions and offshoots of bone which are usually found in the cavity were removed in a greater or less degree, and there were only the white of egg looking matter and pus; the horns also entirely hollow, one of them filled with nearly a pint of lymphy and purulent matter; the cavity extending to the orbit of the eye, thence communicating with the nostrils, especially on *one* side. The brain, which lies in very near contact with this cavity of the crest, (which we may as well call the "*frontal* sinus,") was softened and fallen, in one hemisphere, into a thick mush; a small part only of this half was of healthy consistency, preserving its form or vessels entire. The other half (*hemisphere*) was not softened, but the vessels were very full of blood, and the membranes exhibited signs of intense inflammation. No other region or organs examined."

OUR ANSWER.

It is very natural that the frontal sinuses should be hollow, for if they were solid, the weight of the head would be enormous; and we can readily perceive the wisdom of the divine artist in thus adapting the parts for the convenience of the animal, and relieving it of what, had it been otherwise, must have been a burden to it, and would have required powerful muscles to support the head. The bones about the head are divided into two plates, separated by numerous vacuities, or cells; but unlike those of the horse, they extend through the whole of the bone—nay, penetrate even through the *parietal* and *occipital* bones. Hence it happens that the *frontal sinuses* (so these cavities are called in cattle, as well as the horse) extend from the angle of the eye to the very foramen through which the brain escapes from the skull, nay, to the very tip of the horn. Hence the parts may be said to be hollow; and it is well that every farmer should know this, for some suppose them solid, and are very much surprised to find them hollow. On making a section of the horn from tip to base, it will be found partly hollow, "having sinuses that extend almost to its tip."

The *lymphy and purulent matter* found within the *frontal sinuses and those of the horn, together with the softening of one hemisphere of the brain*, proved that the parts were all involved in disease; but then the disease never had its origin in the horn. The brain, or perhaps its membranes, were the primary seat of the affection, and, after softening,—decomposing,—involved the surrounding parts in ruin. "*The other half of the brain was not softened, but the vessels were full of blood, and the membranes exhibited signs of intense inflammation.*" Probably this was the state of affairs in the diseased hemisphere, in its early stage, and some physical impediments to the return of blood from the brain had induced cerebral apoplexy. The animal was in a plethoric state; "*very fat;*" there was too great redundancy of blood—just the subject for such disease. Softening of the brain, we think, would give a better definition of the disease than "horn-ail."

The editor of the *Planter*, in a subsequent number of his journal, remarks, "The notion that this disease originates in the horn itself, seems to us to be an error resulting from that backward mode of reasoning which confounds symptoms with disease. The disorder in that organ, "the horn," should rather seem to be secondary. No less erroneous do we deem the opinion held by some, that the horn becomes frost-bitten, and then putrefies. Though its whole inner surface is exceedingly vascular, yet it is perfectly protected by the almost insensible horny covering in which it is cased throughout, except only a very minute ring at its base, whose pulsations are the most accurate index of the pulse; and that ring, hardly wider than a thread, cannot be affected by cold. When it is considered that the horn is a substance of lower vitality than the hoof, which never becomes frost-bit, even though chilled by an iron shoe, reason should teach us that it cannot be injured by cold."

A similar case occurred in the experience of the editor of the Planter, which "ran to a speedy and fatal termination." Upon dissection of the head, the *left* hemisphere of the brain was found completely "broken down" or disorganized; the base of the left horn was slightly implicated.

The introduction of a gimlet, therefore, into the horns of cattle thus affected, and afterwards cramming in pepper, turpentine and other foreign bodies, cannot possibly reach the disease nor benefit the animal, but is apt to do much harm. For, puncture of the lining membrane of the frontal sinuses, which generally takes place when the instrument is introduced near the base of the horn, is attended with danger both as regards inflammation and hemmorrhage. And it is just as unwise to fill the parts with pepper, turpentine, &c., in view of cure, as it would be if one of our race were concerned.

Having now shown that the diagnosers of horn-ail are at fault, and that their system of treatment is worse than useless, we shall now give them a chance to save their "bacon" credit.

A man in one of our suburban towns who for many years has been practicing on cattle, informs us that "horn-ail" is very prevalent in his vicinity, that his usual practice was to bore the horns of all his patients (consequently he has earned the "degree" of a Consummate Bore!) and that many were saved."

This is our answer:—Both men and animals often recover after they have a *verbal* death warrant pronounced against them: and they will also recover from the effects of very severe injuries; fracture of the cranium or limbs; puncture of the abdomen or chest; penetrating wounds of the lungs and cerebellum, &c. So that health returns in a great majority of cases in spite of violence opposed to it; hence if an animal shall be restored to health, after having been compelled to submit to the fashionable barbarity of horn-boring; that is no proof of its utility.

In consequence of *having a large amount of matter* on *hand that must be inserted, we here "rest the case"* for the present.

[To be continued.]

A VERY INTERESTING ARTICLE ON MULES.

[Written for this Journal.]

BY B. MUNROE, WOODFORD CITY, KENTUCKY.

Mr. Editor:—Supposing that little is known among the generality of your readers as to the extent of the mule business in this State, I concluded it would not be uninteresting to them to learn concerning it, and something of the character of the beast itself, as I take it for granted they have not had an opportunity of learning all his phrenological developments or temperament.

The mule trade is one of the largest of Kentucky, and affords one of her chief sources of revenue. The increasing demand for them in the South, among the sugar and cotton planters (which is owing, no doubt, to the great number of farms annually being opened in that section,) affords a very easy solution for the eagerness and extent to which stock growers launch into the trade, for it is a very heavy business, requring a great deal of capital. The mule is fed from weaning time (which is generally at the age of five or six months,) to the full extent of its capacity to eat, and that too on oats and corn, together with hay and fodder. In lieu of the long food, soiling is usually adopted in the summer, as they are kept confined in a pound, or paddock, containing an acre or

two of ground, which is usually partially shaded, in herds of one hundred or one hundred and fifty. In this way they are kept until the fall after they are two years old, receiving a sort of forcing, hot house treatment. At this age they are taken to the southern market, not always by the feeder, but more generally by the speculator or "trader," there they are sold to the planter entirely unbroken. The planters are too cautious to buy a broke mule, lest it should prove to be an antiquated, broken down beast, fattened up, and sold for a young one,—as it is more difficult to judge of their ages than that of a horse. The external marks of time, and service is not generally so apparent upon them. But it is a small job to break a mule. It is only necessary to have a steady horse to work them with and a second hand to drive them an hour or two to keep him up, after which, he is considered ready for any service that the farmer may require of him. He may kick once or twice, but is unlike the spirited horse, who when he commences is apt to kick himself out of the harness before he stops.

There were in this county, in the year 1855, 2000 mules; in '56, there were 2888; the number in the county at present I have no means of ascertaining, but suppose it is at least as great, perhaps greater than in any previous year. The probabilities are that all of these, or as many, were fed in this county each year. The counties immediately around no doubt, fed equally as many, some no doubt more. The counties of Bourbon, Fayette, Clark and Jessamine are engaged quite as extensively in the trade as this.

Besides the great number of mules fed annually in these counties, we supply New Orleans, New York and other cities with an immense amount of beef, mutton and bacon. These facts being considered, you may readily imagine that we must, of necessity, be a grain growing people. Such is the fact. Yet so extensive is the mule business, and so great are the profits upon feeding, that those engaged in the trade can afford to give 40 cts. per bushel for corn at least they say so, and cannot get it for less.

In this portion of Kentucky, a lot of mules is almost considered a legal tender; no man is afraid to buy mules at a little less than he thinks they are worth if he has anything to feed them on, for he knows that some buyer will come along in a few days and pay him a small profit on the first cost and the grain they have eaten. It is not unusual for a farmer to borrow money out of banks on four or six month's time, to pay for a lot of mules to eat up his surplus of provender, knowing that it is more profitable to do so than to sell the surplus at home.

As a consequence of this great mania, if it might be so called, and which has now existed for several years, good horses have become comparatively scarce, saddle and harness horses command-

ing the most exhorbitant prices, the sports of the turf were in a perfectly collapsed state, the best stallions were poorly patronized, and mares of finest form, the purest strain and most brilliant escutcheon, were basely "prostituted to the forced and ignoble embraces of the assinine ravisher."

The average price of weanlings is about seventy-five dollars. No. 1, from eighty to ninety, and extra, often as high as one hundred and twenty. A lot will often change hands as often as a dozen times before they are ready for market. Yearlings will average I suppose about one hundred dollars, owing in a great extent, however, to their quality. At two years old they will bring one hundred and twenty-five or thirty, if they are average select lots, more. A neighbor of mine is feeding a lot of one hundred, for which I am told he has refused $175 around. But this is an extra lot, no doubt the best lot in Kentucky. The same gentleman gave a short time ago $300 for a two year old to work to his sulky, and is working to his wagon on his farm four, for which I am told he paid $200 each. Another gentleman of this county sold a short time ago a two year old mare mule for $400. But these are fancy prices for fancy mules, there is a small and inferior class of animals that is considered a sort of dead heads, and which the feeder won't buy if offered alone, and these are ones usually found in service on the farms.

Until forced by the scarcity and high price of horses, the Kentuckians would not use mules. But within the last few years they have become common on the farm, pulling the plough and wagon, and occasionally a clever pair is seen in the carriage, some of them are pretty glib goers for an hour or two, when they get lazy and they will then take the lash "*like a mule.*"

Persons who have tried them on their farms are better pleased with them they say, than they thought they would be. They never get sick, rarely ever get lame, will do as much work as a horse which will cost twice as much money, and at the same time subsist on less and more inferior food, for a mule will work very well on wheat straw and corn shucks, whereas the horse must have grain as well as a good allowance of long food. They are better for our servants to handle, as they can stand neglect and violent treatment better than the horse, and a blemish, such as the loss of an eye does not impair his value as much as that of the horse.

As to their temperament and peculiarities it is useless to say much, the world knows pretty much what that is. He is not so apt to run as the horse but more apt to kick, viz: until broken. He is fond of company, is decidedly gregarious, and his attachments are quite as strong when once formed as those of the horse. It is almost impossible to confine one away from an associate. He will

climb over the fence if practicable like a dog, or if more practicable creep through a crack, or worm himself under it like a pig. An acquaintance of mine told me that he was once in the habit of working a pair together, but on one occasion wishing to use but one, he confined the other in a close stable, where as he thought he would be compelled to remain. But on his return, he found to his astonishment, that the perverse beast had ascended into the hay loft, which enterprising feat it had accomplished by first getting into the trough, thence through the hole left for throwing the hay into the manger. The circumstance forcibly reminded him of the fact that the

"Best laid schemes of mice and men,
Aft gang aglee,"

And at the same time convinced him that if perseverance will not overcome all things, it will at least surmount a great many seemingly unsurmountable obstacles.

CÆSAREAN OPERATION.—EPIDEMIC CATARRH.—TRACHEOTOMY.

BY C. W BOWLER, V. S., CINCINNATI, OHIO.

I was called upon to visit a cow belonging to Mr. Wilder, about five miles from the city, she having been delivered of a calf five days previous, but had been very unwell since. On first seeing the animal she was laying down and very weak. On making an examination per vaginum, I discovered a dead fœtus, and laying in such a position that I was unable to move it, when I tried to remove it by embryotomy, but the vagina and adjacent parts were so contracted that I was unable to operate. I then suggested the Cæsarean operation as the only means of saving her, to which the owner consented. I then laid her on her side, and made her fast, and training all my needles around, I made an incision through the abdominal walls to the peritoneum, on cutting through which, I introduced a piece of cotton sheeting as I enlarged the opening so as to absorb any blood that might escape. The uterus was now exposed, and with one stroke of the scalpel was laid open. The fœtus was now removed, also the placenta and membranes, the uterus washed out and the incision closed by interrupted sutures. She seemed quite relieved, admininistered a mild aperient, and advised that she should be fed on warm gruel for a few days, the wound commenced to heal by the first intention; on my last visit she was convalescing.

We are afflicted in this neighborhood by an epidemic catarrh, or I might perhaps more properly call it endemic inflammation. The

symptoms are, considerable tumefaction of the parotad and submaxillary glands, also of the larynx and pharynx, inclined to eat, but with great difficulty in swallowing; as the disease proceeds, the inflammation become so severe, that it is with difficulty they can breathe. The pulse is full and irregular. In most cases it is easily subdued, if taken in due time.

I was requested to visit a valuable three year old colt belonging to Joseph Cooper, Esq., near Elendale. On my arrival he was dead, having died from suffocation. I selected four two year old colts from the stock, afflicted with the same disease, the following day six others of various sizes were taken, administered a febrifuge draught; with counter irritation to the throat and trachea. Two days following was requested to attend on a mare and foal, both of which were affected. The mare continued to get worse, and on the second day it was with difficulty she could breathe; every means were tried to reduce the inflammation; she could not bear steaming as it required all the fresh air she could get to prevent suffocation. I perceived her getting worse, as she began to look around and paw the ground, several times attempting to lay down. I knew there was no time to be lost, for unless she had immediate relief *death* would shortly claim her, I suggested Tracheotomy to the owner; he gladly consented. The look of anguish which the mare now displayed as she tried to breathe was pitiable to look upon, I made an incision and excised a portion of the trachea, and having no tube I made one from a piece of alder wood, which answered the purpose. She was immediately relieved, and breathed entirely through the tube for two days, when as the inflammation began to subside I removed the tube and closed the wound. She is now out on pasture doing finely, the other horses are all convalescing.

A Famous Horse. — Cossack, the horse Captain Noland rode when he was killed at Balaklava (in the famous charge,) is now the property of a company of gentlemen in Cincinnati. He is a grey Arab stallion, six years old, and fourteen hands high. His groom, who came with him, is Edward Sleaper, one of the eleven survivors of a regiment of 900 British soldiers who landed in Gallipoli in February, 1854. He was at Alma, Balaklava, Inkermann, and the siege of Sebastopol, and looks, it is said, as if he was made of oak, lignumvitæ and iron. Cossack will stand for mares the present season on the Queen City Course.

"OBSERVATIONS

ON SOME OF THE DEFORMITIES OF THE LIMBS OF HORSES, PARTICULARLY THOSE WHICH ARE CONGENITAL, WITH OTHERS DEPENDING UPON INJURY OF TENDON OR LIGAMENT.

BY G. W. VARNELL, M. R. C. V. S.

Demonstrator of Anatomy in the Royal Veterinary College."

This highly practical and valuable treatise on the "deformities of the limbs of horses," is a capital piece of literary property done up, after the fashion of a "small parcel," and although it occupies but thirty-six pages, there occurs in it more matter worth remembering than is generally found in some of the *huge* volumes that veterinary students are necessarily compelled to digest. The following quotation is a fair sample of the practical character of the work: —

"The kinds of deformities met with in the growing horse, are, firstly, congenital and extreme flexure of the pedal bone upon the os corona, depending upon the perforans being too short. Secondly, permanent flexure of the pastern bones upon the large metacarpal. In this instance the perforatus being too short will be found productive of this distortion, connected with disease of the dense membranous sheath which invests it posteriorly. Depending upon the degree or angle at which the bones are placed, must be our remedial measures. If the distortion be but slight, mechanical means only need be resorted to; if greater, a surgical operation conjoined with some mechanical contrivance will be found absolutely necessary.

"In the second instance the toe will be turned up, the animal going on the posterior part of the fetlock and heels. This depends upon the tendon of the extensor pedis being too short. The ligament also which extends from the outer and inferior part of the knee to the upper and anterior part of the first phalange takes its share in producing this effect. Here also, as in the first instance, must our remedies be regulated by the amount or degree of distortion.

"Thirdly: Occasionally we meet with instances of a bowing outwards of the fetlock joints. In such cases the external lateral ligaments are too long, and the internal ones too short. Or in others, and which are less rare, the reverse of this exists: when the fetlock joints will approach each other too near, the feet turning outwards. Of course, under such circumstances, the lateral ligaments would be the reverse of the former case, as to their comparative length to each other. In either instance we should not be justified in resorting to any surgical operation. In some slight cases, if proper attention be paid to the shape of the feet during the period of devel-

opment, much good may be done towards improving the position of the bones we are now considering.

"Another kind of deformity often exists below the parts we have been describing; namely, at the joints formed by the pedal bone and os corona, and to a slight extent between the os corona and os suffraginis. This, although there may be a tendency to it, often takes place during the growth of the animal, from a neglect of those who superintend the rearing of colts, especially as to the wearing away of the hoofs; allowing the inner and anterior part to become elongated, thereby throwing the weight and the wear upon the outside of the foot, and thus producing what is commonly called *pigeon-toed*. Or, on the other hand, the outer and anterior part of the hoof may become similarly elongated, and the weight is then thrown upon the inner side, the effect of which is obvious.

"In a horse with congenital malformed limbs, the bones, in the process of growth, become fashioned to the form of the limb; so that, if the animal be neglected until he has arrived at adultism, no procedure, either surgical or mechanical, will produce the effect we are desirous of obtaining. But during growth, the parts being then pliable, by altering their position when it is practicable, and by some contrivance so as to place the limb in a state favorable to cause a proper development, our object may be gained.

"In young horses it is common to meet with a knuckling forward of the hind fetlocks; so much so, that at times the front of the joint is on a perpendicular line with the toe. This condition is seen in most cases only at times, and that, generally, when the animal is standing: or, he may walk in this manner except at intervals; but when either standing or going, the bones will resume their natural position. The veterinary surgeon is often called upon to give an opinion respecting these cases. He examines the joints by careful manipulation; and he minutely traces the tendons, but finds no lesion of any kind present. There may be, however, more or less fulness of the bursæ above the fetlock. I have very lately examined a bay mare, five years old, afflicted in this way. She is not in the slightest degree lame; her leg is as fine and free from disease, as far as the eye and hand can detect, as can be conceived; and yet she more frequently stands "knuckling" than in any other way. Nor is this observed in her paces, except at times, and that when walking slowly. The question has been often asked, What is the pathology of this affection, and what parts are implicated which cause the animal thus to place himself? It seems to be a commonly received opinion, that putting horses to hard work too early is the principal exciting cause; and the result of my own observations leads me to think that this is correct. Is is likewise asserted by some persons, that bad constitutions, independent of

early and hard work, are a very common cause. This probably may be the case; still we see the affection in horses having the best constitutions. Colts with naturally formed upright pasterns are, if worked too early, particularly predisposed to become thus affected. I have before asked, if we can detect no disease, what can produce this anterior convexity of the joints? Is it that the tendons of either the perforatus or perforans muscle are slightly strained at the point opposite the sessamoid bones? and does the synovial membrane participate in the injury? If so, the result of this would be slight, bnt continuous pain, when weight is thrown upon the limbs, not sufficient, however, to be felt when the animal is excited; therefore, when at rest, he so places himself, that the bones are in a more upright position, and the weight is carried from one bone to another, and not thrown upon the tendons at the place above described. The next question is, What can be done to restore the parts to their normal condition? At this stage of the affection no operation is indicated, because we can detect no shortening of the tendons or ligaments. As far as my experience goes, I would advise that the animal be thrown altogether out of work; that mild blisters be applied to the fetlock joints, and repeated a second or a third time; after which the horse should be allowed as long rest as may be considered necessary. But even after this, the proprietor must not be too sanguine as to the benefit to be derived from such treatment. If due time is allowed, the horse may return to his work, and shew no signs of his former affection; and in some instances he will continue sound; but it is more likely, after having been again worked hard for a time, we shall find that the parts will return to the same condition as at first. This may continue for an indefinite period, depending upon the severity of the work the animal is put to before the affection merges into permanent flexure of the fetlock joint. If we now examine the limb, from a little above the fetlock posteriorly downwards to the insertion of the perforatus tendon, we shall detect a rigidity of structure which in most cases is attended with thickening. Nothing now will restore the limb to its former position but an operation, and the propriety of its being performed we will now consider.

"The incapability to extend the foot depends, no doubt, as in all other deformities of the kind, upon the length of the tendons or ligaments, between their two fixed points, being from some cause or other diminished. We shall here find that this abnormal condition of the tissue exists at such a part as either forbids or allows of relief by operation, and which is the only means by which the obstacle to either flexion or extension can be remedied. As far as my investigations have gone, the cases referred to, in most in-

stances depend on the perforatus and its outer dense fibrous membrane, extending from the superior part of the sessamoid bones to where the tendon becomes inserted into the superio-posterior part of the os corona, and that which is continuous with the fibrous frog, becoming more or less thickened, and sometimes semi-cartilaginous; consequently they are shortened at this particular part. Taking a view of the anatomical relationship of these structures, forming, as they do, a synovial sheath for the perforans, and also their pathological condition, we should not be justified in using the scalpel, especially as the only chance of effecting our object would be by operating below the fetlock-joint, and this we should not be warranted in doing."

There are several illustrations truthfully drawn, shewing the faulty position of the deformities treated of. Among them is one showing the method of casting and securing the subject for the operation of tendiotomy. We are certain that our veterinary brethren on this side of the Atlantic will be glad to procure a copy of this interesting work.

PROPORTIONS OF ECLIPSE.

In our last we promised to furnish the reader some remarks on the geometrical proportions of the celebrated race-horse Eclipse. We select the same from a work "ON THE FORM AND ACTION OF HORSES," written by W. PERCIVALL, late Veterinary Surgeon in the First Life Guards:—

"I must confess I feel some surprise that no person since St. Bel's time—none that I am aware of—has seriously taken up this subject: at least it must be admitted to be an interesting one; one, I think, that may be turned to some useful account; and I only wish it had fallen into better hands than mine. All who feel interested in the annals of racing, and in that science which makes us, on geometrical or mechanical principles, acquainted with "the form and action" of horses, cannot fail to seek with some eagerness what can be learnt about "the best horse that ever lived;" and every such person must feel a debt of gratitude to St. Bel for having, so far as he has, rescued the remains of Eclipse from oblivion, in having left us *data* concerning his shape and action, in number and nature sufficient to enable us at this distant day to infer what kind or description of a horse the paragon of racers must have been.

"In St. Bel's "Table of the Geometrical Proportions of Eclipse," the head is "divided into twenty-two equal parts," and thus divided

it becomes "the common measure for every part of the body." Aware, however, of the fallacy of this standard, St. Bel adds, "If the head appears too long or too short in a horse, that common measure must be abandoned, and the height of the body taken from the top of the withers to the ground." Lecoq finds the same difficulty, and instructs us in such a case to assume as the "unity of mensuration," two-fifths either of the height or of the length of the body; from which it would appear that the head is to be presumed to be of its proper longitude, when two lengths and a half constitute the measure of either the height or the length of the body of the animal.

"We are told by St. Bel, that Eclipse measured 66 inches—16½ hands—in height; and that he stood higher by an inch behind than before; and that this great height was still exceeded by the length of his body, that being three inches more, or sixty-nine inches. It is but rarely that we behold a horse of these dimensions even among the big Derby colts of the present day; and when we come to add fair proportion and power and energy to this gigantic frame, we shall not feel so much surprise at his wonderful exploits. What appears most remarkable, however, in the "proportions" of this famous horse, is the smallness or shortness of his *head*, it measuring according to calculations readily deducible from St. Bel's mensuration, but twenty-two inches; a circumstance, seemingly, that gave rise to his subdivision of it into twenty-two parts, each part then being equivalent to one inch. Hence Eclipse's height being sixty-six inches, was equal to three heads' length, exceeding that of the scale or regular-proportioned horse by half-a-head; and the same excess, and three inches added to it occurs in its length: circumstances mostly, I repeat, attributable to the smallness of his head. Eclipse, consequently, was a tall horse and a long horse, a horse higher behind than before, and withal, a horse possessing a very small head.

"Either, therefore, there is something fundamentally erroneous in the standard of the French schools, or else Eclipse must have been, in his head or other parts out of proportion. Considering that he stood sixteen and a half hands high, and that his head measured no more than twenty-two inches, we need feel no surprise that, while other horses, according to the scale, were but three heads' length in height, he measured three and a half heads. I say this will account for his apparent out-of-proportioned tallness, but it will not account for his neck measuring thirty-three inches, or being equal to one and a half heads' length. The regular proportion of the length of the neck being one head, we can in nowise account for the eleven inches in excess by supposing that the head was two or three or even four inches shorter than heads in general; and therefore the inevitable

deduction is that Eclipse had a long neck, certainly a most desirable formation in a race-horse. His neck, as well as being *long*, was likewise well-proportioned; for it measured in width twenty-two inches at its junction with its shoulders, and yet was but a foot across at its union with the head, shewing how beautifully it must have tapered upward: whether it was of the *rainbow* shape, or was *straight*, is not quite evident.

"The head of Eclipse must have partaken a good deal of the Arabian character; and no wonder, since, on the side of his dam, he is only the sixth remove from the pure Arabian: his dam being got by Begulues; his great grandam by a full brother to Wildam's Squirrel; his great grandam by Lord Darcey's Montague; his great great grandam by Hautboy; his great, great, great grandam by Brimmer, son of the Oglethorp Arabian.

"*Below** the eyes, St. Bel informs us, it measured across, one foot; but from one eye to the other only seven inches; shewing that along with this extraordinary breadth of forehead his eyes were well placed, towards the centre of his head; points not only of utility, but beauty likewise.

"The breadth of the lower or posterior part of the neck (twenty-two inches), with the measure of the scapula, eighteen inches, and the largness of the chest, are circumstances sufficient for us to come to the conclusion that Eclipse possessed *some depth of shoulder;* it was likewise *oblique*, for its angle of inclination amounted to 70°: in fact, all the fault St. Bel could find with the shoulder appears to have been, that it was "too much loaded;" a fault, fault if it be, that certainly denotes strength, and one which, I feel no doubt, many racing people would prefer to a "fine shoulder."

"Eclipse's body measured, across the middle, twenty-six inches in depth, and the same in breadth; consequently he must have possessed "a circular barrel;" and his girth, around the *middle* of his body, at least, must have been—taking twenty-six inches for the diameter of the circle—seventy-eight inches; a circumstance which, unless we take it to have been that of the bare bones, or of a horse drawn or fallen away, certainly presents nothing extraordinary. There must have been a remarkable squareness about the body of Eclipse, inasmuch as lines running transversely from the withers to the stifle, and from the summit of the rump to the elbow, proved of equal lengths. What his actual girth was does not appear; but, according to the depth of his shoulders, it is evident he must have been deep in the chest, or let down in his brisket; and that his circularity of chest did not prevail in the fore

*This must be an error. The measure must have been taken *above* the eyes, from one orbital arch to the opposite.

parts, so as to throw his fore limbs wide apart, is certain, from the measurement of the interval between his arms being no more than seven inches.

The dip in Eclipse's back does not appear to have exceeded much two inches; it might, have according to St. Bel's account, have been three inches; so that he could not have been a horse that "rose" much in his withers: his height was sixty-six inches, and he measured two heads and twenty parts, or sixty-four inches, in the middle of his back, just posterior to the place of dip; for which I allow (too much, perhaps) an inch, making the amount of dip, as I said before, at the very utmost, three inches. From the place of dip, the line of his back inclined (in a curve) upwards, rising at the summit-point of his quarters to one inch higher than he rose at the withers, from which it very gradually declined, but not with much incurvation, if any, to the tail. Eclipse, therefore, had a back roached rather towards the loins, but *straight* quarters, and as we shall find, also *lengthy* quarters.

What we have to admire, as much, perhaps, as any points in Eclipse, is the length and breadth of his arms and thighs: he being in the fullest sense of the words, a large-limbed horse. His arm measured across, from the front to the point of the elbow, the surprising breadth of ten inches, and was longer by two inches than, according to the length of the entire limb, as in horses in general; the measurement, by the scale, being equal between the elbow and bend of the knee, and the latter and the ground: immediately above the knee the arm measuring five inches across, shewing that it preserved its great breadth all the way down.

For the relative lengths of the different parts of the fore limb, we must content ourselves with St. Bel's measurements of the bones. The radius was sixteen inches long, the cannon-bone twelve inches; the pastern, coronet, and coffin-bones, together, seven inches in length: from all which it seems, according to the measurement of other horses, we may infer that Eclipse had, with his long and broad arms, short cannons, and by no means lengthy pasterns.

There must have existed considerable harmony of proportion, and consequently beauty of form, in Eclipse's hind quarters. A line extended from the summit of his rump proved the measure of another passing from the root of his tail to the stifle, to a second drawn between the latter point and the hock, and to a third from the hock to the toe of the hoof. The breadth of the thigh, "taken below the fold of the buttock," was great, ten inches; the same as the arm across at the elbow. Likewise there was great extension between the point of the hock and the bend of the ham, the measure being eight inches; shewing Eclipse must have been the

possessor of extraordinary broad or good hocks, a point of the very first importance in a racer. The cannons and pasterns measured, as is always the case, longer in the hind than in the fore limbs.

Eclipse's limbs were not only large, but long: he must have been what is called a "long-legged" horse; for St. Bel tells us, he measured forty-one inches from his elbow to the ground; leaving but twenty-five inches — his height being sixty-six — in a perpendicular line to the top of the withers; and as the general rule is, that horses should measure equal lengths from the fetlock to the elbow, and from the latter to the withers, if we subtract the length of the pasterns and foot, altogether, say nine or ten inches, or even a foot, we shall still have an excess of length of limb. After we have been told, however, that his chest measured twenty-six inches in diameter, there appears something rather irreconcileable with the statement that from the withers to the elbow is but twenty-five inches. It is not my desire to inpugn St. Bel's "table," though I must say that in this, and one or two places besides, there appears some discordance in his admeasurements.

We may, however, I think, safely receive as matter of fact the following summary:—

Eclipse was "a big horse" in every sense of the words: he was tall in stature, lengthy and capacious in his body, and large in his limbs. For a big horse, his head was small, and partook of the Arabian character. His neck was unusually long. His shoulders was strong, sufficiently oblique, and, though not remarkable for, nor deficient in depth. His chest was circular. He rose very little in his withers, being higher behind than before. His back was lengthy, and over the loins roached. His quarters were straight, square and extended. His limbs were lengthy and broad, and his joints large: in particular his arms and thighs were long and muscular, and his knees and hocks broad and well formed.

That which, however, constituted, in St. Bel's eye, "the most beautiful and important quality of his structure," was the perpendicular lines drawn through his fore and hind limbs: indeed, so perfect were they, that "they may serve," adds St. Bel, "as rules in the choice of the best racers."

THE FIRST PERPENDICULAR falls from (what we call "the point of the shoulder") the articulation of the humerus with the scapula, precisely upon the front of the toe.

THE SECOND falls from the upper part of the fore-arm or elbow to the heel of the fore foot, dividing in its course longitudinally, the fore-arm, knee and cannon.

St. Bel's third perpendicular is but a part of his second; and his fourth drops equidistant between the fore limbs. We, therefore, shall pass to

THE FIFTH, which falling from the point of the stifle, according to the regular scale, should come in contact with the toe of the hind foot, but in Eclipse struck the ground *half-a-head's length* (eleven inches) *in front of the hoof.*

THE SIXTH descends from a point of the hock, along the tendon of the hind leg, and, touching the heel at the fetlock, falls to the ground behindthe heel of the hoof.

THE SEVENTH falls equidistant between the hind legs.

THE EIGHTH AND NINTH have reference to the body. One falls from the withers to the ground, touching the point of the elbow in its descent; the other from the middle of the back, through the body, to the central point of the quadrilateral figure described by the position of the four legs.

All these perpendiculars proved true in Eclipse; one alone differed from those of the approved scale, and this difference we shall find, was attended with advantage: indeed, Eclipse's formation in this respect would appear to have corrected a grand error in the geometrical figure of the French schools.

In describing the differences between the proportions of Eclipse and those of the table of the French schools (which he reckoned to be five, viz. extraordinary height, both of head and body; extraordinary length of neck; the perpendicular from the stifle; and the greater length of arm) St. Bel omitted a very important difference, deducible from his own statements, which is, extraordinary length of limbs compared with the depth of body. St. Bel's admeasurements, as far as they go, have no doubt enabled us to make out what sort of a horse Eclipse was; but his mensuration might, in such a case as this, with much advantage have been carried a great deal farther—might, for example, in the instance of the limbs, included the circumferences of different sections, and, in many other parts, their relative span or thicknesses—also due allowances ought to have been made for the age and condition of his subject. He tells us, he "took the proportions of Eclipse while living, and satisfied his curiosity after his death upon his skeleton, by dissecting his body himself."

It may not be out of place, or unacceptable, to conclude this account of our prodigy of horse-flesh with the remarks, that Eclipse lived to the age of twenty-six, and died of "a violent cholic," on the 27th of February, 1789, at 7 o'clock, P. M.; and that, after a very minute post-mortem examination, St. Bel came to the conclusion that his death was owing to disease of the kidneys, combined with "violent inflammation of the bowels;" was found that his heart weighed fourteen pounds*.

*Notwithstanding this—as it appears it must have—including the blood the heart contained still the weight must be regarded as enormous.

ON CRUELTY TO ANIMALS.

[Communicated for this Journal.]

I have often while witnessing the abuse bestowed on that noble and useful animal, the horse, wondered that while there are so many benevolent or philanthropic societies of every kind, that some person had not suggested a society for the prevention of cruelty to animals, but supposing that it was an original and foolish idea of mine alone, I was surprised to see a notice of such a society in Prussia, and of the good it had accomplished; and soon after I saw a description of one in another place. No person can walk the streets of Boston or any of the adjacent towns but his feelings, if he possess any, will be shocked by the maltreatment of horses. Whether the poor creature is drawing a load, enough for three or four horses; or the wheel of an omnibus or cart is fastened into a deep rut, from which it is impossible for the horse to extricate it, we are obliged to hear the oaths and curses of the brutal driver, perhaps see the butt end of a whip, or the heel of a stout boot applied to the already lacerated body, one cannot help contrasting these emaciated pitiful looking creatures, with the richly caparisoned ones, round the Revere House. It is astonishing that the philanthropist who can talk and write so much and well for the slave can see an animal drop down dead with abuse unheeded.

I cannot help thinking that mankind are no less accountable for the ill use of their dominion over animals, than for the exercise of tyranny over their own species. It is observable of those animals most powerful to injure us that they avoid mankind, and seldom hurt us, unless provoked by hunger. Man on the other hand, seeks out on purpose to destroy them.

It is a bad thing in human nature that so few persons take pleasure in seeing animals play together and enjoy themselves, while many love to see them worried and abused as in cock fights, horse races, &c. We could hardly vindicate the destroying of anything that has life, for mere wantonness, yet many bring up their children in this principle by allowing them to torment poor insects and animals, who are kindly cared for by our Maker, who gave them to us for our comfort and sustenance.

How little do mankind appreciate the blessings which a bountiful Providence bestows on them, for their use; yea for their comfort. How little do they value the creatures subservient to their will, necessary to their life, almost.

And among all, the horse stands prominent; the noble and graceful horse, yet how is he often abused, working hard all day, perhaps drawing heavy loads without perhaps, water or food, and

sleeping or resting in a stifled wretched barn or shed, at night. Since it has become fashionable to carry water in pipes into dwellings, I have often thought what do the animals do for drink and when I have seen them looking and acting as if they wanted something, I thought how good a trough of water, to them or the old oaken bucket would be; we often see or hear accounts of valuable horses dropping dead while drawing great loads, and have found their backs broken, or of fine horses being raced to death in very hot weather. I have myself seen three horses drop down dead in Cambridge street from that cause, and perhaps the lives of the foolish rowdies that drove them was not of so much value.

These things ought not to be suffered in such a very Christian land; if the gentlemen do not feel interested, let the ladies draw up a petition for the suppression of cruelty to horses.

REMARKS. The above communication was handed to us by a lady, who having been an eye witness, of much cruelty practiced on horses, seems (under the influence of true womanly feelings) to have been shocked, as every one ought to be, at the cruelties so unfeelingly perpetrated on man's best friend—the horse. And we hope that some one will feel it a duty, to act upon this lady's suggestion and form a society in Boston for the prevention of cruelty to animals.

Thirty-one years ago a society for the prevention of cruelty to animals was established in the city of London. Its transactions are made the subject of a very interesting annual report, and the persons who have the privilege of perusing the same, speak favorably of the workings of this humane and useful society. We understand that there are similar societies now in successful operation in Dresden, Jamaica, Munich and at the French Capital. A Review of the history, objects, and workings of the *Royal* Society occurs in the Veterinarian for 1853, from which we select the following: —

"The subject, as we well remember, was first brought under public notice by Mr. Martin, M. P., who though ridiculed at first in his project, at length succeeded in obtaining from Parliament powers for the brute protection. In his humane purpose he was assisted by Lord Hatherton; while at the present day we find a person of no less renown in the sporting world than the Duke of Beaufort taking the lead, in the office of President of the Royal Society, for the prevention of cruelty to animals. Without a society, Mr. Martin found that his act when obtained, was likely to prove abortive: what was everybody's business, turned out nobody's business—any person may chance to behold, in the course of his walks or rides, a case of cruelty, but what person scarcely will give himself the trouble or devote the time to collect evidence, lodge information, &c., while he may after all have to bear the costs of court. Herein is the great advantage of a Society like the present one; it takes

the trouble, time and risk of expense on its own hands, and withal conducts the proceedings with much better chance of their successful issue. And what renders this Society of more consideration still, is the *preventive* influence such legal proceedings, on its part, must necessarily have, and with the class of the community especially among whom are to be found the greatest delinquents. With pride may Englishmen exclaim, "our country led the way in this good work."

Mr. Daniel who spoke at one of the Society's meetings contends that ignorance is the cause of much cruelty towards animals, and urges, "That the very grooms of this country are men who should be thoroughly acquainted, either by attending lectures or in some other way, with the formation and beautiful organization of the horse; and that they should not in their own business, be ignorant individuals, as they, too often are."

The speaker here alludes to a barbarous, practice which we believe is not practiced here, therefore we cut short this quotation and introduce another, by the Rev. R. Burgess: —

"I cannot suppose that a man, (such as I have now described,) can understand of what materials an animal is made; he cannot understand that the sufferings of these animals are as acute as those which we feel under similar circumstances. There are unmistakable proofs in the animal creation, that they are just as sensitive to pain as we are. Do we not see, if there be even a menace of punishment, they alter their very countenance? Do they not fear like ourselves? Do they not languish and die like ourselves? And if this be the case are we not responsible for all that amount of needless suffering which is inflicted upon the animal creation."

* * * * "We will not allow a Society like this to be the object occasionally, of those taunts and ridicule which we hear from unthinking and unreasonable men. They may tell us that such is the organization of the insect that he can suffer but little, and that he feels but little the pang of death. Our answer is, that however that may be as a subject of physiology, the Society is formed for the protection of the higher classes of animals; those whose organization is such that the sensation of pain is so highly developed, that they suffer as much as man, who is endowed with all the faculties of humanity. Therefore when I hear persons attempting to throw ridicule upon a Society like this, and upon those who contribute to its support, my answer is, the object is to alleviate pain in the higher classes of animals; to do away that cruelty which is wantonly inflicted upon your faithful dog; or upon that useful animal to man, the horse—which we all know, are most susceptible of pain."

We shall endeavor to procure a few copies of the Society's reports, from which, extracts will hereafter appear in this Journal.

PUERPERAL FEVER MISTAKEN FOR "HORN-AIL." DEPLORABLE EVENT.

Monday, June 15th, 1 o'clock, P. M., was requested to proceed to Medford. for the purpose of giving professional advice regarding the treatment of a valuable cow, said to be afflicted with "*horn-ail.*" The animal was owned by Mr. Edgerly, a man well known to our citizens as an industrious expressman, and one who could not afford to lose an animal which contributed largely for the support of his family.

The history of the case may be briefly condensed, as follows: The patient at that period was the mother of a fine healthy calf three days old; had been somewhat exposed to the variable weather prevailing at the time; was first observed to have lost her cud, as the saying is,—or, to have ceased ruminating; her head drooped; the udder became hard and swollen; the secretion of milk small; the breathing rapid; eyes dull. Soon after the attack she got down, and turned her head toward the left side, and would, occasionally, throw it recklessly about. The horns were cold, and in consequence, "*the neighbors* persuaded the owner that his cow was the subject of *horn-ail.* The horns were bored in several places, and pepper, &c., introduced within their cavities; but the suffering creature grew *no* better very fast. In the meantime she was "*dosed* and *doctored.*"

Present symptoms at the time of our visit.—The animal lies on the *right*, her head turned to the *left* side; pulse fluttering, cannot be counted. The expiratory murmur is gurgling, in number, twenty-two. She is unconscious, insensible to manipulation, and unabled to rise. The eyes have lost their brilliancy, and are amaurotic. A few tears are passing over the inner canthus, and run down the cheek. She evinces little sign of life, except by respiratory action. Traces of effused blood are seen on a small portion of protruded rectum, and the inner part of the labii of the vagina is brightly reddened. Various parts of the body differ in temperature; the frontal regions and horns very hot; lumbar region cold; fore extremities warm; hind extremities cold. Abdomen slightly tympanitic.* There is no appearance of either dung or urine having been recently voided.

Diagnosis,† Puerpural Fever.

Prognosis,‡ Speedy death.

We shall offer no comment on this case, but respectfully ask the reader's attention to article "horn-ail," which will be found at the

* *Tympanitis*, distended by flatus, or gas.
† *Diagnosis*, the art of discriminating diseases.
‡ *Prognosis*, the art of foretelling the results of disease.

commencement of this and the August numbers. It may not, however, be out of place to remark, that being satisfied there was no help for the poor creature, we declined doing anything. Under such circumstances, we hold to the doctrine that "it is the province of the good physician to know when to do nothing," for the censurable practice so often pursued of worrying a dying creature by forcing a horrid mass of "hotch potch" down its throat, is a proceeding which a Christian community should set their faces against.

REMARKS ON THE PUBLICATION OF RECIPES.

To the Editors of our Agricultural exchanges:—

GENTLEMEN,—The editor of this journal acknowledges his indebtedness to you all for past favors. Many of you have taken special pains to introduce him to the immense audiences whom none but Editors have such frequent opportunities of addressing; and you have all spoken well of the *Journal*, and of our efforts to diffuse a knowledge of veterinary science; for all this and many favors of a personal character, we tender our greatful thanks.

Aided by you, and by those veterinary surgeons who have written, and still intend to contribute for this journal, we hope to dispel the comparative darkness that now exists in this country in reference to the principles of veterinary science.

Unaided by you, we can accomplish but little, therefore are constrained to ask your continued co-operation, and beg of you to advocate, on all suitable occasions, the establishment of veterinary colleges, and urge our husbandmen to use their influence in sustaining those institutions now in operation.

Much good can be accomplished by our brethren of the press in refusing to publish the barbarous recipes cut out of old books, and sent by "*yours, a subscriber.*" We do not object to them because they are *old*, but because they savor of ignorance and barbarity, and being found in the pages of a respectable paper, the readers are often tempted to give them a trial; and although the *medicine* recommended be destructive enough to kill a well animal, yet some survive its action, and thus it is said to cure.

The Editor of the "*American Agriculturist*" done a good service to the cause of veterinary science when he published the following, and we hope that others may do likewise:—

SPAYING COWS WITH SULPHURIC ACID.—A. P. L., of South Carolina. We know nothing of the practice you refer to. We would as soon think of "injecting" a rifle ball, to render a cow barren, as

sulphuric acid. We confess ignorance in this matter of using acid. —*American Agriculturist.*

Dr. Holmes, of the "*Maine Farmer*," in view of shewing the absurdity of depending on "*old Almanac*" recipes, &c., thus burlesques the business:—

SUNDRY AGRICULTURAL AND DOMESTIC RECIPES.—We close our chapter, this week, with the following recipes, which some wag has concocted for the special benefit of farmers. Just give them a perusal:

"*To prevent Hoof-Ail in Cattle.*"—Cut their legs off just above the hoofs.

"*To make Butter Yellow.*"—Work in scraped carrots and pounded butter-cup flowers.

"*To make Hen's lay.*"—Cut their heads off.

"*To fatten Hogs.*"—Own a grist-mill.

"*To cure Hams.*"—If of western hogs, soak 'em in whiskey and strychnine; of eastern hogs, smoke 'em.

"*To keep Cattle free from Lice.*"—Singe the hair off close to the roots.

"*To prevent a Cow from Sucking herself.*"—Suck her yourself, or milk her dry.

"*To make a good Garden.*"—Get a good wife.

"*To 'raise' Poultry.*"—Call at your neighbor's poultry-yard in the night time.—*Maine Farmer.*

"*To prevent Horn-Ail.*"—Cut the animals body off, *close* up to the horns.—*Grey Mare.*

Here is a sample of one of these objectionable recipes, cut from the pages of a weekly newspaper, published in the "*Athens*" of America:—

"HOW TO CURE A STIFLE.—*Mr. Editor*,—In your paper of March 7th, Mr. G. W. Hayes inquires what will cure his colt that has got his "stifle displaced." This is my way: Take the white of an egg and a piece of hog's lard about as big as a shellbark; put them on a moderately warm stove, and stir them till they are thoroughly mixed,(do not heat them too hot, a fried egg will not cure a stifle,) apply to the stifle joint, a little above and below; heat the joint with a hot shovel, as hot as the horse will bear; two or three applications will perform a cure, if the stifle has not been out too long. I have cured a number in that way."

Now suppose that from some accident a man *dislocates*, or *luxates*, (both words have a similar meaning,) the knee-pan, technically known as the patella, and a surgeon is sent for, who, instead of reducing the same, returning the bone to its seat of articulation, he shall proceed to carry out the above recommendation. What would the patient and his friends think of the proceeding? They

would certainly consider the operator an arrant impostor. Now a colt with his "*stifle displaced*," is in the same condition as a man having luxation of the patella, and the luxation can only be reduced by mechanical means. Hundreds and thousands of recipes and recommendations, in the course of a year, equally absurd as the above, find places in our agricultural journals, and we hope that the press will unite with us in suppressing the growing evil.

A STRANGE MATCH — OATS vs. TIME.

A novel match came off the other day at the stable lately occupied by Mr. Filkins, in this city between C. W. Brush's mare *Fanny*, and Walter Winne's horse *Winne*. These gentlemen met in the evening, and after discussing the merits of "horse flesh" generally, and especially the items of blood and nerve of which each was individual possessor, various matches were proposed — none of which, however, were agreed upon between the parties. Failing to come to time on any proposition to test the speed and bottom of their respective nags, the parties finally bet their "bowels," as Dominick would express it; or rather, concluded to "go in" on the stomachs of their beasts. The match was made as to which nag would eat four quarts of oats in the shortest space of time. Accordingly, both horses were placed in a strange stable in the morning, in adjoining stalls—*Fanny* in harness, and *Winne* in blanket—both being in prime order and eager for the oats. James R. Fonda was duly chosen umpire. Quite a large crowd of admirers of horse flesh were drawn together by the novelty of the match.

The excitement ran up to fever heat, and bets rapidly rose from "ponies" to "fiftys." Everything being in readiness, the measures were filled, the nags noses were brought to the starting point, and at the word "go," the oats were dropped into the manger, and the exciting race commenced. On the start, both horses for a time kept nose and nose, both working gallantly and coming to time in fine style. Shortly, however, it began to appear that *Winne* was leading the mare *Fanny*, and the backers of the latter began to falter, when suddenly *Winne* "broke," and threw up his head to take a look at the by-standers. This was an awful moment of suspense for those who had "bet their money on the bob-tailed horse," and accordingly they set up a terrific shout of "Go in, *Winne!*" "Go in, *Winne*, and win!" Thus urged on, the horses braced in again, and went in at it in earnest — the mare *Fanny* in the meantime keeping on in the even tenor of her way. The oats rapidly disappeared, and the match speedily approached its climax — both being

"on the square." Suddenly it was announced that the game was up—*Winne* coming out just a "handful of oats ahead of *Fanny*." Time, five minutes and forty seconds. The crowd dispersed soon after, and when our reporters left, parties were rapidly *liquid*ating their lost bets.—*Troy Budget.*

HOW TO RID ANIMALS AND PLANTS OF VERMIN.

The *Agriculior* publishes a letter from M. Raspail, giving an account of a plan for destroying vermin on animals, and also trees and plants. The process he recommends is to make a solution of aloes, (one gramme of that gum to a little water,) and by means of a long brush to wash over the trunks and branches of trees, with this solution, which will speedily, he says destroy all the vermin on them, and effectually prevent others approaching. In order to clean sheep and animals with long hair, they must be either bathed with this solution, or be well washed in it. The writer mentions several trials which he had made of the solution with the most complete success, and very strongly recommends it to general use.—*Paris Correspondent of the Morning Advertiser.*

OBITUARY OF THE HORSE COLUMBUS.

The following obituary written by the editor of the *Michigan Farmer*, goes to show that men of intelligence delight to honor a noble horse, and are not ashamed to do justice to the memory of a departed animal:—

"COLUMBUS IS DEAD." These were the words which saluted us on the morning of the 28th ult. They were heard with surprise. We had seen this noble animal but a few days before. He was then in full possession of health—vigorous and powerful, with mighty limbs and thews and muscles, that seemed to set disease and death at defiance; he flew past like a thunderbolt, his coat flashing in the sun like burnished lightning, his feet spurning the ground with a tread like the rushing of a herd of buffalo, his head erect and lofty as that of a conquering king, his ears pointed "like the quills of the eagle," his eyes bright as a sunbeam, his nostrils glowing as the forge of Hephæston, his mane tossing in the breeze like an oriflamme, and his tail streaming as proudly as a standard of an Emir of the desert. He was a glorious sight. Now he is dead.

Columbus died from an attack of inflammation of the bowels, which lasted only for a few days. The sudden death of such a fine animal in the midst of his usefulness, is to be deplored as a loss to the whole farming community of the State. A few years' service in Michigan would have given us a race of large, powerful, and fast horses, which would have been distinguished for excellence and intrinsic value in any market, and would have added immensely to the wealth and reputation of those engaged in the business of breeding and raising horses. We are pleased to know that it is probable there will be some of his progeny left with us.

We believe that Mr. Austin Wales will have the sincere sympathy of every horseman in the State for the loss of his valuable stallion. They will all know that when a first rate stock animal has been sought out, brought from a great distance, and become a favorite that a mere return of the price of the animal does not replace him.

SPARE THE CALVES.

The demand of the butcher upon the veals is altogether too indiscriminate. So few of them escape the knife, that all kinds of cattle are extravagantly high. First rate cows are selling readily for sixty dollars and upwards, and oxen for more than twice that sum. Beeves are very high and are drawn a long distance, to supply the demands of our city markets. There can be no doubt, that in this state of things, farmers ought to deny the importunity of the butcher, and raise more calves. But if this be done, let not the meanest samples be saved for this purpose. Too many adopt the miserable policy of raising only what the butcher leaves, and thus their herd is always depreciating in quality. Select the best heifers, in form and color, and do not turn them off form the cow until they have got a good start. They may be taught to eat slops at five or six weeks old, as well as earlier. There is no substitute for the mother's milk, that will meet all the calf's want. A great point is gained, when a calf comes to the fat pastures of June, strong and healthy. The animal can then make the best use of its food, and develop what is in it. A heifer calf generously treated the first year, brings a calf at two years old, and begins to pay a profit to her owner. This is much better than to stint calves in their first year and get no profit from them, until they are three years old.—*American Agriculturist.*

RACING IN EUROPE.

We learn among other news brought by the last European steamer, that the Austrian Government have concluded to follow the example of the English and French Governments, in giving official support and cognizance to the sports of the Turf throughout the Empire; and to that end it has made an appropriation of 70,000 florins per annum. This is to be in cash, and is for prizes to be given to the winners of races, which are to take place at Vienna, Prague, Lemberg, Pesth, and Klausenberg. This is a sensible course; and the States which pursue it makes a concession to the inclinations of the people, which teaches a valuable lesson. In view of such a broad and liberal policy, on tbe part of Protestant England, Catholic France, and Germany, how absurd appears the cant which we continually hear from some quarters here, on the immorality and vulgarity of racing. Without going very deeply into the investigation of any subject or spot not well known to us, we should be very apt to hold that custom or pastime to be respectable, which was patronized by such a woman as the Queen of England, and presided over by the most lofty lords and gentlemen of the British nation. The immorality of improving the breed of horses. Bah!—*Porter's Spirit.*

MISCELLANEOUS.

ARTICLE ON MULES. In the present number the reader will find a very interesting article on Mules from the pen of Dr. B. Munroe, of Woodford City, Kentucky. The Dr. has our thanks for the same, and we hope he may send us more of a similar character. The mule is an animal which possesses a good constitution in a powerful frame. These animals are not so subject to the incidental diseases, of horses, they are equally useful for all domestic, and purely business purposes, can endure more fatigue, and bear up for a longer period under privation with less injury to the vital economy, than that animal said to have a more noble origin. There is a good deal of prejudice existing among men in regard to these useful animals, and such men as Dr. Munroe, and others, who have tested the enduring and useful qualities of mules have the necessary data, ability and influence to overcome the popular prejudice now exhibited against these animals.

A CELEBRATED BULL.—Mr. Thorne has lately imported the celebrated Bull "Grand Turk." The price paid for this noble animal is $1,500.

LOCAL IRRITANTS.—Persons who are in the constant habit of visiting *sale stables* and annoy the occupants of the same by troubling them to "back out" and "show off" all their best horses, yet never intend to buy one, are *local irritants* of the worst kind.

A WOMAN in one of the towns of New Hampshire, who had been ill-used by her husband, on finding him asleep one day, quietly sewed him up in the bed clothes, and then gave him a tremendous thrashing. Good plan, and recommended to wives in general.—*Germantown Telegraph.*

If any lady happens to have a husband addicted to the cruel practice of applying the toes of cow-hide boots to the sides of horses, and will perform a similar feat as above, she shall have a *duck* of a new bonnet at our expense; just so soon as she puts us in possession of the facts in the case, and her name.

THE MOST POWERFUL OF MAGNETS.—A celebrated lecturer on natural philosophy was one evening dilating upon the powers of the magnet—defying any one to name or show anything surpassing its powers. An old gentleman accepted the challenge, much to the lecturer's surprise; but he nevertheless invited him on to the platform, when he told the lecturer that woman was the magnet of magnets—for if a loadstone on the table could attract a piece of iron for a foot or two, there was a young woman who, when he was a young man, used to attract him *thirteen miles every Sunday to have a chat with her!—Ploughman.*

LANTERN AND PRINCE.—We learn that Mr Hall has matched his fine Black Bashaw trotting horse Lantern, against Prince, in two races, for $2,500 a side in each race. Both matches will come off in September. The first will be two miles, $1,000 forfeit, and the second three miles, pay or play.—*Spirit of the Times.*

A horse dealer, describing a used up horse, said "he looked as if he had been editing a newspaper.—*Ibid.*

TRIAL OF AGRICULTURAL IMPLEMENTS.—The national field trial of Agricultural Implements, under the auspices of the United States Agricultural Society, will take place at Syracuse, New York, on the 13th day of July. Splendid gold medals are offered for the best reaper, mower, and reaper and mower combined, besides many minor prizes.—*Porter's Spirit.*

TROTTING ON-DIT. - We learn that Lancet and Brown Dick are matched for $2,000, in a race of mile heats, in harness, best in five. The race is fixed for the 26th July, and is to come off on the Union Course. Has nobody pluck enough to bring out the little bay mare—the incomparable Flora—on even terms?—*Ibid.*

HORSES FOR ENGLAND.—There is now in stables connected with the Fashion Course, two very fine yearlings under the care of Mr. Brown, agent for R. Ten Broeck, Esq., which, upon the arrival of three or four others belonging to Mr. T. B., will be conveyed to England to join the American stable there. One of those at the Fashion Course is a very handsome ch. c. by Imp. Glencoe, dam by Imp. Trustee, out of Picayune's dam; the other is a br. f. by Financier, out of Sarah Washington by Zingaree.

NATIVE AMERICAN CAMELS.—We have some Camels in Texas to which naturalization laws would not apply—three have been born under the stars and stripes. The Washington Star says they are thriving, and that five or six more births are expected.

HOW TO DISTINGUISH DISEASED PORK.—Some of the western papers, in speaking of the hog cholera, says that the reports are exaggerated. "But little of the unwholesome meat," it remarks, "has been shipped to the eastern states. The disease attacks the young stock, and generally exhibits itself after their feeding on still slops. Hogs dying with it cannot be salted, as no amount of salt will preserve their flesh. If exposed for sale, it must be as fresh pork. Any animal dying in its blood from disease, cannot be dressed and have a healthy appearance. Any such meat

exposed for sale can be detected by its dark and unusual color; and it is against such meat, supplied from sources near home, that the community should be on their guard."

Our western friend is not posted up in this matter. Diseased hogs are not suffered to "die in their blood," but they are bled and killed in the same manner as other hogs. This is the way they manage matters at Greenbush, and we suppose the same to be true of other slaughtering villages. Hogs dying "full of blood," of course cannot be salted, be their health what it may. But if a sick hog is killed in the usual manner, the appearance of its flesh cannot be told, by its looks, from other pork. Such meat will also take the salt and bear barrelling. All these facts show that a closer inspection is required than our cotemporary imagines. There is a large quantity of "sick pork" being got out for New York, Boston and Albany. Buyers should be aware of this fact, and purchase with unusual care. The best test of pork is its firmness; soft is always dangerous to buy; avoid it at the present time, as you would poison.—*Albany Knickerbocker*

A gentleman in the springtime of life, and somewhat green, when walking out with a young, intelligent lady one day, he stumbled and fell. On resuming his perpendicular, the lady remarked that "She was verry sorry for his unfortunate *faux pas* (fo-pa.") "I didn't hurt my *fore paws*." said he, "I only *barked* my *knees*!"—*True Flag.*

A College of Agriculture has been established in Michigan on a handsome farm of seven hundred acres. It has an endowment of $56,000, and in each of the last two years the Legislature has given it $20,000. Students are admitted without fee, but are obliged to labor three hours each day.

MURRAIN IN CANADA. The Quebec Mercury says that an alarming disease prevails among the cattle in the parishes of La Beauce, on the south side of the St. Lawrence, the origin of which cannot be traced. Upwards of fifteen hundred animals, chiefly cows, have perished.

THE SOURCE OF FAT IN ANIMALS. During the course of the past year, experiments have been made in France to prove that the fat of animals exceeded the quantity which could be referred to the food they were supplied with. The chief experiments were made on ducks. Some were fed on rice, a substance which contains only a few parts of fat in a thousand. Others fed on rice, with a certain amount of butter added. At the end of the experiment, the first was as lean as when first placed upon the diet; the latter, in a few days, became positively balls of fat. Other experiments were made on pigs. It was found as the result of several trials, that there was more fat produced than was contained in the food on which they were fed, and that pigs fed six months on potatoes yielded no more fat than was contained in the food they consumed. Food which, given alone, has not the properties of fattening, when mixed with a fatty matter acquires the property to an astonishing degree; and fattening articles of food, which do not contain much fat, always abound with its chemical constituents, the principal of which is azote, and from whence the fat acquired is certainly derived.—*Country Gentleman.*

MR. ALEXANDER'S STOCK SALE.—The following is a recapitulation of the sale of R. A. Alexander's stock, sold on the 3d instant, at his farm in Woodford, Ky.:

30 bulls sold for $9,790, averaging per head $326 33; 30 heifers sold for $6,490, averaging per head $216 33. Making 60 head of cattle that sold for $16,280, an average of $271 33. 8 bucks sold for $226, averaging $75 33; 4 Cotswold ewes sold for $103, averaging $25 75; 8 pigs sold for $70, averaging $8 75. Amount of sales $16,679. 2 bulls let one year for $830, averaging per head $415. Total amount of sales and lettings, $17,509. Bull named Oliver sold for $725 to A. R Humphries, of Virginia.—*B. Munroe.*

EDITOR'S DRAWER.

We are indebted to the author for a copy of "A Lecture on Imponderables, delivered before the students of The Eclectic College of Medicine, by C. H. Cleaveland, M. D., Professor of Materia Medica and Therapeutics.

From Messrs. Fowler & Wells we have received a copy of "How to Behave; a pocket manual of Republican etiquette and Guide to Correct Personal Habits. Embracing an exposition of the principles of good manners; useful hints on the care of the person, eating, drinking, exercise, habits, dress, self-culture, and behaviour at home; the etiquette of salutations, introductions, receptions, visits, dinners, evening parties, conversations, letters, presents, weddings, funerals, the street, the church, places of amusement, traveling, etc., with illustrative anecdotes, a chapter on love and courtship, and rules of order for debating societies" Price, post-paid, paper 30c., muslin, 50c. New York: Fowler and Wells, 308 Broadway.

The Cosmopolitan Art Journal.—The June number of this elegant journal of American Art, is just received. It contains some exceeding well written articles, and is illustrated by portraits and biographical sketches of distinguished persons and authors. The subscription price is one dollar per annum. To members of the Cosmopolitan Art Association it is furnished free. Address, Derby & Co. 548 Broadway, New York.

The American Agriculturist.—This excellent Agricultural journal still makes its regular monthly visits; we consider it a reliable and well conducted paper.

Ohio Farmer.—Mr. Thos. Brown, the enterprising editor and publisher of the *Ohio Farmer*, has lately made great improvements, in the typographical appearance of the *model paper* of the "forest city," and he spares neither pains nor expense, in view of furnishing his readers a bounteous supply of good, practical, and readable articles. Specimen copies can be obtained by addressing the editor at Cleaveland, Ohio.

Those desiring sterling *agricultural* papers, can make a selection from the following list.—Michigan Farmer, Country Gentleman, Southern Cultivator. Ohio Farmer, Ohio Cultivator, Canadian Agriculturist, Southern Planter, American Agriculturist, Boston Cultivator, New England Farmer, Maine Farmer, Ploughman, American Farmer, Wisconsin Farmer, Plough, Loom and Anvil, Western Agriculturist, Farm Journal, Carolina Cultivator, Tennessee Farmer, Southern Farmer, Working Farmer, Arator, Valley Farmer, American Cotton Planter, California Farmer, Cincinnatus, Ohio Valley Farmer, North Western Farmer, Rural New Yorker, Rural American, Prairie Farmer, Vermont Register.

Sporting Papers.—Spirit of the Times, Porter's Spirit of the Times.

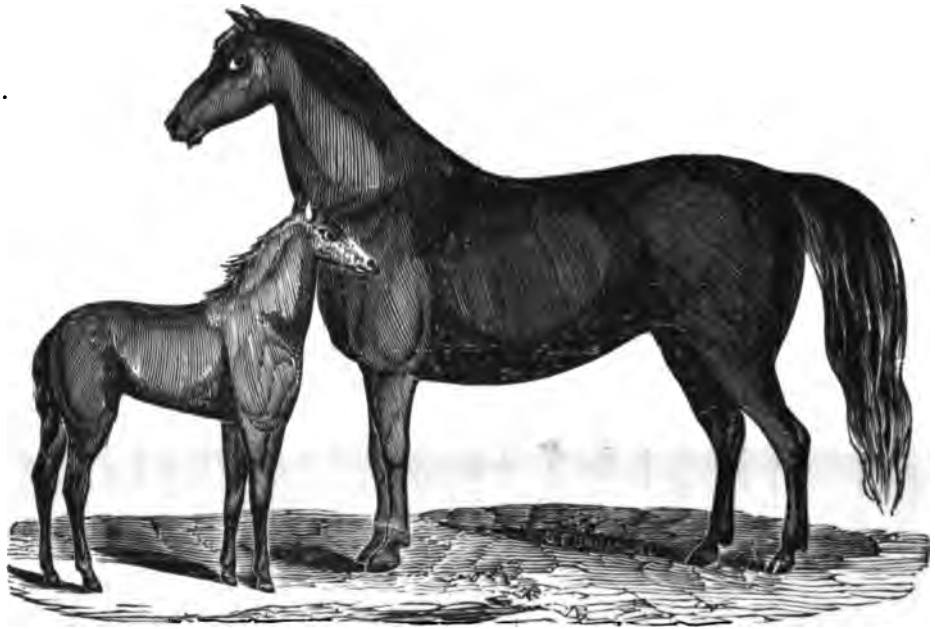
Miscellaneous Papers.—True Flag, Life Illustrated, Saturday Evening Post, Germantown Telegraph, Inventor, Brunswick Telegraph, Laurensvile Herald, State Journal.

The place of publication, and the subscription price of the above, can be ascertained by consulting our March number.

We shall in our next call the attention of our readers to a select list of Medical periodicals.

TO OUR EXCHANGES.

Will the Editors of our exchanges please notice the Prospectus of the Boston Veterinary Institute? It will be found on the last page of "cover."



MORGAN QUEEN.

Owned by JOHN LEET, ESQ. of Roxbury, Mass. Dam of YOUNG EMPIRE, published in the July Number of this Journal.

THE AMERICAN

Veterinary Journal.

DEVOTED TO THE DIFFUSION OF VETERINARY KNOWLEDGE.

Edited by GEORGE H. DADD, Veterinary Surgeon.

Published by S. N. THOMPSON & Co., 97 Union Street.

PRICE, ONE DOLLAR PER ANNUM.

VOL. II. BOSTON, MASS., AUGUST, 1857. NO. 8.

HORN-AIL.

(Continued from page 198.)

If we were to institute a rational enquiry regarding the history of the animal said to be the subject of "*horn-ail*," we should perhaps find that the liability to disease of the digestive apparatus was in the ratio of 99 per cent. compared with the remaining single risk in favor of the "*horn*" theory.

A man, for example, has a cow, or ox, or a lot of them, which he intends to bring to market, in view of transferring them into dollars and cents. He puts them through, (as the moderns have it,) the fattening process, furnishes them with a superabundance of carbon, in the form of meal and other nitrogenous equivalents; the result is, an accumulation of adipose tissue, the animal becomes fat and consequently plethoric. The accumulation of fat offers an impediment to the free and full play of the heart, lungs and diaphragm, and should the subject be a pregnant cow, she is liable a few hours after the period of parturition, to be attacked with milk or puerperal fever, or convulsions; as in the case referred to in the last number. Therefore the liability to disease in more important structures than the horns is a matter of fact that we seriously urge our itinerant cattle doctors to consider.

Neat stock are often the subject of catarrh, or "*hoose*," as it is termed, nasal gleet, &c.; in either case, a profuse discharge

occurs from the surface of the nasal membrane, extending to the frontal sinuses, up to the very tip of some horns; this is often called horn-ail, and the gimlet is brought into requisition, and on withdrawing it, some of the "*matter*" may possibly escape from the orifice, hence the gimlet is said to do good. This we deny; for the more rational way of favoring the discharge of the same, would be to steam the nostrils and adopt such other means as the nature of the case seemed to require.

Even granting what some contend for, viz., that an abscess occasionally forms in one of the nasal cavities, then it would not be proper to bore the horns: for the pus must necessarily be enclosed within a sac, which the gimlet may rupture; then the morbid matter escapes into the frontal sinuses and is apt to set up diseased action on the tissue with which it comes in contact. If it be ever necessary to puncture an abscess of this character, it should be done by way of the nostrils.

Even should the animal labor under any disease located within the horns, the introduction of a gimlet would be a very unsafe remedy, as all veterinary surgeons are ready to testify. It is a dangerous business to puncture a membrane so highly organized as that found within the frontal sinuses,* especially when so rude an instrument as a gimlet is used. The instrument must lacerate the parts and induce severe inflammation and suppuration; consequently, is better calculated to produce disease in this region rather than cure one existing there.

We have examined many animals after their horns had been bored, and have always found an undue degree of heat in the cranial region; throbbing pulsations about the base of the horn, and a general disturbance of the functions; sometimes an accumulation of pus within the cavity. Then, again, internal hemorrhage, effusion, &c., of blood, is apt to occur after boring the horns; and every intelligent physician would be unwilling to incur the risk attending the same. Many a valuable animal has been lost by hemorrhage following fracture, puncture, and in sawing off the horns.

Horn-ail is said to be so prevalent among *neat* stock, that the farmer, (in the *imaginative* mood,) fears it as he would the plague. And the only remedy for this lamentable state of ignorance, is for them to use their reason,— God-like and rational, and avail themselves of the experience of those competent to diagnose disease by its concomitant and persistent symptoms.

* The gimlet, ere it enters the lining membrane of the parts, (termed schniederian,) must necessarily puncture a highly vascular membrane, (termed periostum;) the external covering of the bony column, and inflammation and suppuration may be the consequence, ending in altered structure.

We are now in possession of *facts*, shewing that the introduction of a foreign body — a gimlet, may induce a formidable disease, therefore it should never be used.

Among the diseases mistaken for "*horn-ail*," we name indigestion, and this disease is almost as prevalent among neat stock as it proves to be among the members of the human family in this country. Loss of cud, or a cessation of rumination, is one of the principal symptoms of acute indigestion. We made an autopsy in a case of this character only a few weeks ago, and found the abomasum, or fourth copartment of the stomach enormously distended with food, and on removing the same the mucous membrane readily peeled off. We particularly pointed out the pathological appearances as they occurred, to the owner of the animal, but as he had made up his mind, and the neighbors confirmed his opinion, that the animal was the subject of *horn-ail;* he still believes that the trouble first commenced in the horns, which had been bored in several places!

We are not contending that the vascular membrane, within and without the osseous structure of the horns and contiguous parts enjoy immunity from disease; they are subject to the same, as occurs in other parts precisely identical in function and structure; but we are exposing a false theory which confounds functional and organic diseases with their symptoms or manifestations.

A local disease of the horns is not unusual; for example, a blow in the region of the base of the horn often occasions a local affection, and this is not to be wondered at, when we know that the parts in this region are merely defended by a thin cuticular envelope, and therefore it offers but little protection to the sub tissues. This region is denominated by brutal men as the "*tender spot*," and in view of subduing a restive animal, they aim their bludgeons in this direction with terrible effect. Local injuries of this character, and those occurring in the savage encounters which horned animals frequently engage in; the boring of their horns, and sawing them off, &c., &c., are accidents, and processes more or less operative in exciting a local affection.

A local disease of this character admits of the following demonstration, viz., percussion. Percussion is the art of striking various parts of the body with a view of ascertaining the seat of disease. Every substance, when thrown into sonorous vibration, produces a sound, the tone of which is peculiar to itself, and every change which takes place in the composition of that substance, or in the arrangement of its component parts, is accompanied by a corresponding change in its tone. If we strike a solid body, it emits a solid sound; strike an empty one, and it emits a *hollow* sound. In like manner, if we strike a healthy horn, we get a sound of hollow-

ness.* When the horn and frontal sinuses are occupied by matter, we elicit a dull sound without vibration. The difference between the sound elicited from an empty barrel and a full one, or a solid post and a hollow one, when struck with a hammer, is not more remarkable than that between a healthy and a diseased horn. By the same means we diagnose diseases of the chest. We are, therefore, enabled with absolute certainty to determine the presence of pus within the horns. And keeping in view the history of the case, which it is our business to enquire into, we can generally tell whether or not such abscess result from local injury, or disease within the parts, or if it be the sequence of some other disease, and thus regulate our treating accordingly.

In regard to the treatment of an abscess located in the region of the base of the horns, the proper method is to trephine the scull; which operation can only be performed by a veterinary surgeon.

Some remarks on "*tail-ail*," in our next, will bring this article to a close.

THOUGHTS ON VETERINARY SCIENCE.

(Written for this Journal,)

BY R. JENNINGS, V. S.

THE course of veterinary science is onward and upward; its rapid advancement dazzles the eyes of all the old fogy veterinarians. The empiric begins to quake with fear. Men of education, enterprise and refinement are filling up our ranks, and are destined to rescue it from the hands of the farrier, as did scientific men rescue human medical science from the hands of barber surgeons; in fact many of the minor operations in human surgery are performed at the present day by barbers, such as cupping, bleeding, extracting teeth, &c. From this we see that our own task is by no means a hopeless one. A blow has been struck in the right direction; the nucleus has been formed, around which all veterinarians having the good of their profession at heart will cling with unbounded tenacity. This is not the result of one individual effort

* Among some breeds of animals, the Alderney and *polled* cattle, for example, the osseous or boney structure, is much denser than in some others, and the vacuities or sinuses are confined to the base of the horn. This dense state of the parts, however, does not increase the weight of the horns so much as some might suppose, from the fact that it has a countless number of perforations, sponge-like, extending through its entire structure. It is remarkable that almost all horns, (we mean the osseous structure of the same,) which approach the solid form, are generally diminutive. On the other hand, all large horns are lined within by a thin osseous tablet, and the off-shoots from the same which form the walls of sinuscsses are also remarkably thin.

alone, but a combination of many. A mutual interest for harmonious action seems to have arisen in our midst spontaneously, as we see the efforts of veterinary surgeons in three great States of our Union, namely, New York, Pennsylvania, and Massachusetts, concentrating their efforts for the advancement of our noble cause. Already veterinary institutions begin to flourish, sustained by men of the first respectability and standing in society.

As our little army are pretty well distributed throughout the States, our cause will best be promoted by harmony of action. Let no one falter in the discharge of his duty. Let them but sustain veterinary colleges, veterinary associations, and veterinary journals, then, and not till then, may we look forward to that happy day when veterinary science claims second to no other known science in the world. If the veterinary surgeons of the United States would use their pens more freely, and fear less to enlighten the public mind on the various diseases to which the equine race are subject, it would redound to their credit, profit, and scientific attainments, for while he is instructing others, he is fixing facts indelibly on his own mind. Let no veterinary surgeon imagine that he knows enough, or his success in life will not be great. I am aware that this feeling prevails to a considerable extent. An old practitioner of Philadelphia, who boasted of knowing all that could be known regarding the diseases of the horse, once condemned to die a fine Messenger mare, having been treating her for farcy without success. It happened, however, that T. J. Corbyn, a well known veterinary surgeon of Philadelphia, and myself were passing the Blue Bell, where this mare then was in keeping. As she was to be destroyed that day, we were asked to see her, and offered to take her off their hands for the purpose of experiment, thus saving them an unpleasant duty to perform.

We detected here a marked case of scarletina, a disease not known in the horse at the time the veterinarian in question graduated from the London Veterinary College. We treated her for that disease, and in ten days she had so far recovered that we drove her back to where we got her, a distance of five miles, without the least fatigue being manifest. She was afterwards used for a long time as a coach horse by Jacob Peters.

This case was brought to the notice of the Veterinary Association at the time, and all its members who saw the case, concurred in our diagnosis. The most prominent symptoms in this case, was crimson patches on the schniederian membrane, elongated but not pustular; an eruption over the entire body of the animal; discharges of pus mixed with blood from the nostrils; bloody discharges from the anus and vulva; pulse rapid, skin hot and dry, eyes very much reddened, tumefaction of the hind

extremities. The treatment of this case was confined to the extract of belladonna, in 3ss doses, morning and evening, dissolved in a pail of water. I mention this case, that others who know all that can be known, may take the hint in time and guard aganist such occurrences. The importance of consulting one another's opinions seems to be too much neglected in this country, in consequence of which many practitioners are ignorant of the improvements and discoveries made in medical science.

Much has yet to be learned and many valuable discoveries yet to be made, which can only become the property of the profession by publication in veterinary works, and I hold it to be a duty incumbent upon every veterinary practitioner to communicate any such improvement or discovery for the benefit of all interested.

There is one subject of considerable importance which I desire calling the attention of the profession to ere I close my remarks. I allude to the diseases of horses' teeth. Though of very common occurrence, veterinary authors are silent on the subject. Is it because these diseases have been overlooked? It at least appears so. We find occasionally a wonderful parade made through the papers of some horse having suffered from a carious tooth, as though it was of so rare occurrence. I have some fifty specimens of this disease in my private cabinet, many of which I exhibited to the class at the Ohio Agricultural College, during my lectures at that institution last winter. As this is comparatively a new subject, I trust these remarks may claim the attention of the profession. I defer further remarks on this subject for the present, but at some future time I will give it more consideration, trusting that in the mean time some others will interest themselves in its investigation. Denuding of the teeth is another disease to which the horse occasionally falls a victim. I shall consider this also at some future time.

I called your attention some time since to the discovery of an obscure lameness in the horse, caused by the clips on the toe of the shoe; and as W. W. Fraley, of Philadelphia, first called my attention to it, I would be glad to see an article on the subject from his pen. I trust that he will bring it before the profession at once; and thus keep the ball rolling on.

Lime sifted through coarse muslin, and stirred thick with the white of eggs, makes a strong cement for glass or china. Plaster of Paris, pulverised, is still better, and should be stirred by the spoonful, as it is wanted.

FALLACY OF THE CHEMICAL THEORIES OF FOOD, MAINTAINED BY LIEBIG AND CARPENTER.

BY PROF. J. R. BUCHANAN.

Food has been divided, by modern physiologists, into two classes, the *calorific* and the *histogenetic* or tissue-forming. That which contains the four simple elements, carbon, nitrogen, hydrogen and oxygen, (viz: the nitrogenous or albuminous class,) is recognized as histogenetic, while the saccharine and oleaginous class are considered merely calorific food destined to sustain the temperature of the body, as fuel.

If this view be correct, it would follow that the most efficient way to raise the temperature of the body would be to consume saccharine and oleaginous food, while the use of the most nutritious food would have no *immediate* tendency to sustain our temperature, the temperature of the body, according to Carpenter, being sustained in carnivorous animals only by the waste of their tissues.

These doctrines of Liebig and his followers are based upon *chemical speculations*, instead of *physiological facts*, and are remarkable examples of the success of a bold dogmatic theorizer, in misleading the Medical Profession. It is entirely untrue, that the saccharine class of aliments has any remarkable power of elevating the temperature of the body; on the contrary, of all the substances which we consume, (excepting water and acids,) the saccharine have the least calorific power, and when we are encountering severe exposure to cold, our instincts teach us to avoid the saccharine and acid substances, but to seek the nitrogenous first, and aid them by the hydrogenous. In cold climates there is nothing so efficient for the support of the strength and warmth of the body as muscular flesh, the most nitrogenous of all aliments; and the inhabitants of the coldest climates are compelled to rely upon such food, as Nature has given them a supply of, while she has removed the saccharine and acid classes beyond their reach. On the other hand, in warm climates, saccharines and acids abound in fruits and juices of plants, and the inclinations of the inhabitants lead them to such food on account of its pleasant, cooling influence. This is directly contrary to the Liebigian theories.

Wheat, in hot climates, assumes more of the starchy or saccharine character, losing a portion of its glutinous element, and thus becomes adapted to the wants of the climate. The olive tree is the product of a rather warm climate, and the oleaginous food which it furnishes is a favorite article in such climates, as well as

butter and other oily aliments. But such food has not the reputation of producing any very ardent or febrile effect, in which respects it is certainly inferior to flesh.

Were the fashionable chemical theories true, the consumption of saccharine and oleaginous aliments would keep up a high temperature of the body, (unhealthy and unpleasant in hot climates,) but would contribute nothing to the nourishment of the constitution; they would produce an emaciated and hot temperament. But, in fact, neither sugar nor oil has any such heating effect, and, instead of favoring emaciation, they are highly valuable for fattening. Sugar is so closely similar to human fat in its composition, as to be convertible into it by the loss of a portion of its oxygen; and oily food contributes to the nourishment of the adipose and nervous substances of the body — the latter of which consists largely of fatty matter.

While we are thus led to the conclusion that saccharine and oleaginous aliments contribute to nourish the least nitrogenous structures, and sustain respiration only incidentally, (thus removing them from the calorific class to which they have been assigned by Liebigian physiologists;) we find, on the other hand, that the animal temperature is promptly raised and most efficiently sustained by the most nitrogenous food. We find, too, that the consumption of such food is promptly followed by an increase of the amount of urea, proving that a portion of its elements have been discharged as carbonic acid, (while evolving heat,) as the incombustible remainder has been discharged by the kidneys.

	Carbon.	Water.	Hydrogen.	Nitrogen.
Albumen,	48	14	22	6
Urea,	6	12	6	6
Destroyed by respiration,	42	2	16	0

As the atomic constitution of urea is C2, H4, O2, N2, it is certain that when such a substance is removed from the blood, a hydro-carbonaceous substance is left, consisting of carbon 42, hydrogen 16, water 2, which, unless it is discharged by the bowels, or converted into fat, furnishes calorific material for respiration. In sluggish individuals the liver and bowels may become the outlet for a considerable portion of this substance, but in those of active habits it is chiefly consumed and discharged as carbonic acid gas, and water.

We know that when we take very active exercise we thus increase the discharge of carbonic acid and water, and at the same time our discharge of urea is greatly increased and our temperature elevated. Hence it appears that the formation of urea is a consequence of the previous combustion of the hydro-carbonaceous

elements of the blood; and, if we consume a large amount of nitrogenous food, we increase at the same time the discharge of carbonic acid, water and urea, and the evolution of caloric, by furnishing the best materials for such purposes. But, on the other hand, the consumption of non-nitrogenous food has but little effect in sustaining the temperature, unless it contains an excess of hydrogen. And the extreme diminution of the urea, under vegetable diet, (still greater under non-nitrogenous food,) proves that the amount of urea derived from the waste of the tissues is moderate, and that its principal source must be found in our food, or rather in the digested material daily and hourly added to the blood.

In the experiments of Dr. Lehman, the amount of urea, when none could be derived from the food, was less than half of the amount under animal diet. Hence it is certain that at least half of our urea comes from the food, and the amount is increased in proportion as exercise renders the combustion of our nutritive materials in the blood more rapid. Chossat says, $\frac{10}{11}$ of all nitrogen of our food is discharged by the kidneys, consequently, the hydrogen and carbon associated with the nitrogen are destroyed by respiration. Whether any considerable part of the urea comes from the waste of the tissues at all, can not be proved, since we do not know whether such waste material undergoes oxidation, or whether it is discharged by the bowels. On the other hand, that carbonic acid and urea are derived from the protean materials of the blood is proved by their dependence on the new materials added to the blood — by the fact, that increasing the amount of blood increases at once the amount of urea and carbonic acid discharged. And when the supply of protean materials is cut off by non-nitrogenous food, the blood is still capable of furnishing the reduced amount of urea and carbonic acid discharged.

It is therefore clear, that as the blood furnishes urea, carbonic acid and water* with a rapidity proportioned to its richness, and to the amount of respiratory and nervous energy, while the production of these materials from the waste of the tissues *has never been proved*, the whole theory of Carpenter, that animal heat results in carnivorous animals simply from the waste of their tissues, is a gratuitous assumption, based only on the fallacy, that protean materials *must form tissues* before they can undergo combustion; an idea contrary to the most evident chemical facts.

We may therefore consider it sufficiently certain, that nitrogenous aliments are the best materials for the formation of tissues, and for the elevation of the animal temperature — a proposition

* In winter, the combustion of the hydrogen of the blood develops a large amount of water in excess over the amount of liquids consumed, as is proved by the comparison of the urine discharged, with the liquid swallowed.

sufficiently established by experience, in the common sense of mankind, before it was assailed by chemical theorists.

Some of the conclusions to which these Liebigian theories lead, are not only erroneous, but absolutely ludicrous in their extravagance.

"Thus it has been calculated," says Carpenter, "that since fifteen pounds of flesh contain no more carbon than four pounds of starch, a savage with one carcass and an equal weight of starch, could support life for the same length of time during which another, restricted to animal food, would require five such carcasses in order to procure the carbon necessary for respiration. Hence, we see the immense advantage as to economy of food, which a fixed agricultural population possesses over those wandering tribes of hunters, which still people a large part both of the old and new continents."

In other words, according to Dr. Carpenter, it would require a much smaller quantity of starch and flesh than of pure animal food to sustain life, a proposition notoriously incorrect. We can support life on a much smaller quantity of animal food than of mixed diet, and on less of animal and vegetable food together than of purely vegetable food.

It was certainly unwise in Nature to withhold her sugar, gum, and starch from the inhabitants of cold climates, where they are so urgently needed, according to this theory, and give them so liberally to the inhabitants of hot climates, whose respiration is so much more limited and consumes so much less of carbon.—*College Journal.*

WHAT AILS MY HORSE?

OUR ANSWER — LETTER OF ENQUIRY — AND ANSWER BY PROF. COPEMAN.

We are constantly receiving letters (unaccompanied by fee or even a post-office stamp,) from persons, earnestly entreating us to tell what "*ails my horse?*" Now we hate to be uncivil, by committing such communications to the flames, but really we cannot afford to give gratuitous advice, especially when the same has to be communicated in the form of a lengthy epistle, which is only calculated to benefit, *pecuniarly*, the enquirer. We are willing to answer any communication calculated to advance the cause of veterinary science, or such as shall enlighten our readers on the subject of theory and practice; the why and wherefore of disease; its causes and preventatives. But when a man has a sick animal and he chooses to consult us authoritatively, he ought to be willing to pay for reliable advice; failing to do so, his letter is not likely to be answered, for

a man might on the same principle ask us to raise a colt, and when he reaches the age of five, to forward him free of expense to "*yours, a subscriber.*" In view of showing the necessary literary qualification and *medical* business tact, requisite in answering such documents, and the responsibilities involved, in so far as the reputation of the surgeon is concerned, by commiting his thoughts to paper, subject to the criticism of any and everybody, we introduce the following *letter* and *answer*. The writer, however, is a considerate gentleman — proposes to *pay* the doctor. The answer, by Professor Copeman, is characteristic of a scientific man; he explodes the enquirer's theories with marked effect.

THE LETTER.

Hartland Centre, Liv. Co., Mich., June 22, 1857.

ARTHUR S. COPEMAN, ESQ.,

Dear Sir,—I want your advice in regard to the treatment of a stallion I bought this spring. You will recollect of my writing you in regard to my stallion Chesapeake about that tremulous motion in the fore legs; by careful shoeing, &c., I have lessened it very much. This horse which I am about to write you of, is a fast trotter, and accompanying this letter I send you one of his bills. "Cossack" has been troubled with *cracked heels* more or less for the last year, and has what is usually termed *scratches*.

I bought him in Detroit, in April, and before I had brought him home and had fed him much, I had him bled, twice, by a veterinary surgeon. He told me his blood was corrupt and bad. I have given him nothing but a few Epsom salts occasionally in his feed, and have applied an ointment to his heels with good success, but fast work seems to have a tendency to open the cracks again. He being advertised as a fast trotter, I have at intervals to show his speed say half a mile or so. There is no fever apparently in his legs, and no appearance of *grease whatever* about his heels. He has gentle walking exercise almost daily, and now almost all the cracks are well. I presume his system yet wants cleansing.

I have omitted to say that I have fed him some *burdock root*, and it seems to me his coat looks much more healthy, although it has always been good never having started. His season will close, and I have thought of giving him a run to pasture for a month, or would you keep him up and soil him? You will see by his bills that I have challenged any stallion in Michigan. Now, Mr. C., I want to get his heels sound and keep them so. Can anything be applied that will make the skin tough?

BE SO KIND AS TO ANSWER ON RECEIPT OF THIS, and whatever you ask for your prescription I will send you. We have what are called good veterinary surgeons in Detroit, but I had rather follow your

directions than any other surgeon within my knowledge in this country. Address me at Howell, Livingston County, Michigan.

I am, dear Sir,
Yours very truly,
JOHN MUIR.

THE ANSWER.

Utica, June 26th, 1857.

JOHN MUIR, ESQ., Dear Sir:—I have the honor to acknowledge the receipt of yours of the 22d inst. Your full description of the past and present condition of Cossack, relieve me of all difficulty respecting the *nature* of his "ailment." The horse's general health is good, still he is troubled, as, you say, by a simple local affliction, "cracked heels." In reviewing this *local* disease, as a result of *general disease*, you have fallen into a very common error. The extent and evil of this absurd "humoral theory" is plainly seen in the folly of the Detroit veterinary surgeon. He must have studied the veterinary art as it was practiced during the dark ages." To take a common sense view of the matter, "cracked heels" and "chapped hands" are *similar* affections; to produce either we have only to wet the skin several times a day and leave the parts to *dry* by *evaporation;* this rapidly lowers the temperature of the skin, leaving it in an irritable, unhealthy condition; if this be frequently repeated we sooner or later get "cracked skin," or what in horses is termed "scratches" Here permit me to ask what would any sensible man think of the genius of an M. D., who, in such a simple case, should gravely inform him that "his blood was corrupt and bad," and he must be put through a thorough course of bleeding, physic, &c. We know the "simple public" never ask any questions when *giving* or *taking* physic. Still we think *any sensible man* would at least make an odd face, and either laugh at the doctor's stupidity or sneer at his impudence. Our advice is, first, knowing the cause avoid it as far as possible; keep your horse at all times in good working condition, carefully proportion his feed to his work, and always bear in mind the fact, that a "fat, indolent" animal is *predisposed* to disease, both local and general, even more so than a very poor one.

Whenever a disposition in the limbs to "stock" is observed, hand-rub them well at least twice a day; let the work be regular but moderate, always avoiding fast work. Should the heels be washed or wet from work, always rub dry or bandage with flannel, as soon as the horse is put in his stall. When the heels are thoroughly dry, carefully examine, and if any part is very red or cracked apply glycerine with a soft piece of cotton, or, better, a camel's hair pencil, night and morning. If the case is of *long standing*, the edges of cracks thick, discharge gluey, apply a strong solution of sulphate

of zinc, viz: zinc 1 part, rain water 4 parts; but, *observe*, *never* in "scratches" use this or any other caustic *oftener* than here advised. This caution is given because daily experience long since convinced me that much of the *apparent* difficulty in healing scratches is due to the too frequent interference of the attendant. It is a very easy matter to destroy the living tissues as fast as nature forms them. Avoid ointments and greasy preparations of every kind; all *oils* irritate the skin of the horse.

You ask, "can anything be applied that will make the skin tough?" This is like asking "can man improve the works of his Creator?" In no tissue of the living body is there more exquisite wisdom displayed than in the skin. This beautiful *envelope* in the horse is protected *externally* by one of the *toughest* of all the elastic substances known (hair;) under this we find a membrane, tough, strong, yet pliable as India rubber (epidermis;) the entire surface of the *true skin* may be said to be made up of millions of air-cushions (hair follicles,) each being imbedded in and surrounded by oil globules, and, to complete the wonderful organism, every part is held together and supported by the most exquisite "spring mattress" ever seen by man, (elastic cellular tissues.) Can man improve work like this? No, no.

Now if your horse is in "good condition," I should not turn him to pasture; a few weeks run at grass would only make him "soft and washey," requiring four or six months good care to bring him into his present condition, saying nothing of the ill effects of "fly stamping," "musquito stinging," &c., &c. Yours, &c.,

A. S. COPEMAN.

VENTILATION.

(*Continued from page* 183.)

THE most important matter to be borne in mind, whatever mode of ventilation we adopt, is, *air once respired should not again come within the sphere of respiration*, but should be made to pass off, or be replenished with a fresh supply introduced into the stable by a steady current. In a *ventilated* stable we find that the air which has just been expired is lighter than the surrounding medium, consequently ascends, and before a second inspiration commences the impure air is out of reach of the nostrils.

In order to secure a current of pure air, it is only necessary to make openings in the ceiling, introduce square or circular chimneys with caps, and make provision for the admission of pure air in the vicinity of the floor, which can be done by cutting square holes in the wall and inserting into them a wooden frame, covered on the

outside with a wire grating. A harness room or stable office may be ventilated by making a circular hole into a disused chimney, the upper edge of the hole being on a level with the ceiling; the foul air naturally ascends, and having the benefit of the draught of the chimney, is readily carried upwards; fresh air is admitted through the doorway in summer, and *beneath* it in winter, so that it is an easy matter to get rid of the unpleasant atmosphere, which almost invariably pervades such places, and with which arrangement so many persons who labor in, and visit the same, have occasion to find fault.

Prof. Wyman, in his work on ventilation, informs us that this simple plan of ventilation is carried out in two of the largest printing establishments in the city of London, in which, for several years previous the workmen employed had been exposed to the full influence of vitiated air, which was so sickening and oppressive (just like that of some harness rooms) that they were continually the subjects of disease, but so soon as this simple plan of ventilation was adopted, the health of the men improved.

Vitiated air, under the above conditions, has an upward tendency, still if we wish to diverge from the common mode, we can give it a downward current, and thus effectually prevent all expired air from again re-entering the pulmonary cells. The act of expiration, through the nasal cavities of the horse, is in a downward direction, and a current in this *direction* can be secured when sufficient spaces near the ceiling are left open. This plan was adopted by Mr. Bigelow, in the construction of a barn and stable at West Cambridge. It is so constructed that a current of pure air free from dust is admitted under the eaves all round the building, and there are loopholes in various parts within a few feet of the floor; these are furnished with slides, which serve as regulators of the temperature of the atmosphere within. To insure a free downward current, it is only necessary to open the slides, and if a still purer and cooler atmosphere is desirable the doors may be opened also. A warm atmosphere is secured by closing the slides and doors, for then the current of air is interrupted.

The only advantage, however, of this mode of ventilation over the ordinary one which insures an upward current, is, the air reaches the lungs uncontaminated by dust, or the exhalent vapors of the body.

In some stables in this city we observe a large hole in a partition, or wall, right in the face and eyes of the animal. This, in most cases, is objectionable, for, should the horse face to the eastward, he has to contend against the acknowledged depressing influence of an east wind, and facing otherways he may encounter dust, vapor and rain. In view of all the facts connected with the subject of ventilation, we shall contend that the theory of an upward current is the

most feasible and economical. This was the opinion of Sir Humphrey Davy, who, in a letter to Lord Liverpool, in the year 1811, proposed to ventilate the *House of Lords*. His plan was, (and it is suggestive to those about building new stables,) to construct *flues* and admit fresh air by numerous openings in, or near, the floor. This plan is a simple one, and the great chemist realized that all the operations of nature in this direction were conducted on an apparently grand, yet simple, scheme, that of *motion*. He contemplated the benefits derived from the gentle zephyr, and the more refreshing breeze, and periodical currents of wind from region to region, and he was led to exclaim, that a fixed atmosphere, or one without motion, was the bane of vitality. Hence we are to understand that in order to purify the atmosphere of our dwellings, houses, and stables, we must give it motion, for without motion it will become filthy, like a puddle of stagnant water. The world's progress and man's ambition have rendered the means of ventilation more complicated and costly, yet the principles are the same and ever will be.

In conclusion, we remark that money expended in the ventilation of a stable "*pays*;" it is an investment which tends to keep stock healthy and thus makes *small* doctor's bills, while pure and cool air is the best cough medicine that can be furnished to a horse, yet this, like many other agents, is not a specific for all coughs.

So far as the horse is concerned, the above is the closing paragraph. In our next we shall discuss the subject of ventilation, with special reference to the welfare of members of the human family.

ATTACHMENT OF ANIMALS FOR EACH OTHER.

Animals of different species are capable of forming attachments for each other. I have heard the late Gov. Brooks relate an affecting anecdote of this kind:

When the American army in the Revolution lay at Valley Forge, during the inclement winter of 1779–80, the stable of the Governor, then a Colonel in the army, was tenanted by three inhabitants, of species the most diverse, but of affection the most cordial and united —a horse, a dog, and a drake. No sooner did the horse lie down at night, than the dog came and lay close by his side, then the drake as invariably crept into the little oval nest created by the dog's legs, head and body. In this position they passed the cold winter nights, and were invariably found by the servant the next morning. The dog and the drake became devoted friends. At the close of every meal they resorted to the Colonel's quarters to be fed, and the shaking of

the table cloth was a signal for a race between the dog and the drake, which would arrive first and get the nicest bits of their common repast. Usually the race was a pretty even one, the drake making up for the shortness of his legs by the activity of his wings.

At length, however, there came a deep, light snow. At noon the table-cloth was shaken as usual, and the dog commenced the race of bounding through the snow and was soon near his dinner. Not so with the drake. He commenced his usual career with great impetuosity, but soon began to tumble from one hole into another, until he became exhausted. But what did the dog do? Did he rush on and devour his meal alone? By no means. He missed his companion, looked behind, and saw him struggling in the snow; he galloped back, took the drake gently in his mouth and bore him off to share the meal of his noble-minded companion.—*Dr. Burnap.*

ARE SPAVIN AND RINGBONE CURABLE?

BY DR. JENNINGS, V. S., CLEVELAND, OHIO.

It is now four weeks since my proposal was published in the *Ohio Farmer*, to discuss the question, "Are bone spavins and ring-bones curable." I have looked in vain for a reply from the advocates of spavin cure, but it has not come. Is it because these men fear exposure, or is it for want of confidence in themselves? I stand in direct opposition to the general opinion, while they make an assertion, and credulous people believe it true. Why, then, I ask, do they so carefully avoid this important question, while they boldly advertise to cure the above named diseases, or no pay? If they can perform such miracles, I should be most happy to know and acknowledge it, and they have nothing to fear from such a controversy; but if they cannot, it is far better that they remain silent, as I have good reasons to believe they will; for it is my conviction that they cannot sustain their own theory, and dare not attempt to defend it publicly. No man has a right to assume a position, unless he is fully prepared to defend and sustain it at all times and under all circumstances, particularly in the practice of medicine. "Every man who announces himself as a Veterinary surgeon, impliedly contracts with those who employ him, that he has the necessary information which enables him to perform the duties of his calling in a proper and scientific manner, If he is wanting in such scientific qualifications, and by reason thereof his patients are injured or die in consequence, the employer can recover the amount of damage resulting from such mal-

practice." There is no longer any excuse for those practising our profession to remain wholly ignorant of the several branches of science taught in our medical schools, as our facilities for gaining such information are increasing every year. I shall now endeavor to fulfil the promise made in my last article, and show the fallacy of such operations as are now, and have been, practiced in the treatment of spavins and ring-bones, under the pretence of cure; and in doing this, I shall expect to prove: —

1st. That spavin may, and often does exist without external enlargement.

2nd. That external enlargement is the termination of spavin of long standing.

3rd. That spavin and ring-bone are osseous diseases terminating in anchylosis, or stiff joint.

4th. That bone spavin and ring-bone are incurable.

5th. That all applications in the treatment of these diseases are only palliative.

6th. That enlargement around the coronet may, and often does exist, without ring-bone.

7th. That ring-bone is similar to spavin, location giving it a different name.

8th. That those persons who pretend to cure the above-named diseases, are either ignorant of the pathology of spavin or ring-bone, or that they are practicing a gross imposition.

In order that your readers, who may feel interested in this question, may fully understand the nature of these diseases, it will be necessary to take a cursory view of the anatomical structure, and the morbid or pathological condition of the parts involved.

THE ANATOMY OF THE HOCK.

The hock consists of six small bones, which are technically termed the astragalus, os calcis, os cuboides, and the ossa cuneiforma, externum, medium, and internum. These bones admit of but limited motion, and are covered on their articular surfaces, (points of union,) by a cartilaginous cushion, which, being very elastic, prevents the jar from concussion that otherwise would arise; these cushions are lubricated by the synovial fluid, commonly called joint oil. They are surrounded by fibrous membranes, called ligaments, which bind the bones firmly together, and prevents the synovia from escaping. The anatomical structure of the pastern joint, (the seat of ring-bone,) is much the same, with this exception, that it consists only of the large and small pastern bones, and is not so liable to injury.— *Ohio Farmer.*

(To be Continued.)

MANUFACTURE OF HORSE SHOES.

We had the pleasure, a few days ago, of visiting the establishment of Mr. —— Wheeler, of Feltonville, Mass. This gentleman has been engaged for several years past in bringing to perfection various machines for *forging*, *creasing* and *moulding* horse shoes, and he has expended over twenty thousand dollars in the enterprise, and in securing his patents in this and other countries.

Mr. W. seems to be a man of considerable mechanical genius, force of character, and indomitable perseverance. In regard to his favorite pursuit, we are informed that he was not educated as as a machinist, but accidently discovered that he had talent in that line. It was brought out in this wise: he, like many others, had occasion to deplore the faulty methods of shoeing, pursued by some, and the wear and tear of human muscle in forging shoes, and he set about, in a quiet way, to remedy the evils. After experimenting for a year or two, he found that he could forge any given pattern of shoe. But here appeared the greatest obstacle to his success: he produced shoes of every variety of form, but the craft contended that a forged shoe, submitted to the uniform pressure on the roller principle, was not equal to the hand-hammered one. At this stage he met with great opposition from the very men he intended to benefit, and who ought to have encouraged him. He had great pecuniary difficulties to encounter also, at this time; yet, nothing daunted, he labored diligently and improved on his machines so as to combine the hammering and rolling principles. The shoes are now acknowledged to be far superior to anything that can be produced by hand.

From rough notes made on the spot, we will give the reader some idea of the mode of manufacture, and of the machinery.

Our attention was first directed to a very ingeniously contrived instrument for forging metals of all sorts, kinds and shapes, of regular or irregular forms. A piece of iron eight inches in length, was introduced into the machine, and without altering the gage of the same, the iron presented sixteen different varieties of *form*. By a rotary motion, and having control of the cylinders, the metal can be drawn to any desired length of taper, and the mould for the shoe can also be forged without altering the gage.

In manufacturing the shoes, we observed that the iron, as fast as made in the *blast* furnace, was passed into the rolling mill; here it received the required size for "*shoe shape*," of every conceivable thickness and pattern, without any extra heating. From thence it was transferred to the creasing machine, and lastly into the curvator, which bends the tough metal into any given regular

or irregular curve, just as easy as a boy would bend a straw; and every variety of pattern can be secured.

We were satisfied beyond the shadow of a doubt, that the iron can be refined and condensed — the dross removed — in one-twentieth part of the time now occupied by manual labor, and without those numerous irregularities observed on the surfaces of hand-hammered shoes. As a finishing touch to the shoe, it passes into another machine which gives it a taper, or if desired, a wedged heel.

The process of manufacturing shoes by Mr. Wheeler's machinery differs from that claimed by another individual, (we have forgotten his name,) which "*mashes*" or condenses the dross, with the native metal, in an imperfect, solid body.

Mr. Wheeler can manufacture horse shoes, with one set of machines, at the rate of thirty per minute, or one thousand eight hundred per hour. To perform the necessary labor it requires six hands — three men and three "*green hands*," or boys — who can turn out, in the course of twelve working hours, twenty one thousand six hundred horse shoes. What say the men —

"Whose brow is wet with *honest* sweat,"

to this novel enterprise? We pause for an answer.

The most tangible proof that the experimenter has been successful in demonstrating his theory, is founded on the fact that a number of wealthy citizens have purchased one undivided half of the right to manufacture these shoes in the United States, for the sum of $50,000.

Mr. Wheeler extends a cordial invitation to gentlemen who feel an interest in this matter to visit his establishment; and we would urge those persons who are skeptical on this subject to do so without delay. We look upon this enterprise as one of the most important of the age, and no doubt the enterprising individual will secure a handsome fortune.

Some of our readers may probably remember that Mr. Wheeler is the person who first brought into notoriety the afterwards celebrated horse Columbus; and one of the stud colts of this animal now stands at the "Cox farm," Feltonville. This animal bears a more striking resemblance to the old horse than any colt of his get we have yet seen.

CONUNDRUM REMODELLED.—Why is a horse with a handsome tail likely to be a perfect beauty? Answer, "Because all's well that end's well."

ON COW-POX, OR PRIMITIVE VACCINATION.

BY M. GARREAU.

From cases and experiments that have come under the observation of M. Garreau, he has come to the deductions, 1st, that persons who have had either the small-pox or cow-pox, submitted to the virulent lymph of the pox of the cow, as readily contract one or more *vaccine pustules* as persons who have never had either small-pox or cow-pox; and 2dly, that human medicine ought not to rely too much on primitive vaccina, either as a producer of cow-pox, or a preserver against human variola or small-pox. Hence he has been led to the conclusions—

1. That cow-pox, considered as the primitive source of vaccina, is nothing but a pure invention of man. 2. That Jenner inoculated nothing but the small-pox. And 3. That in regard to primitive vaccina or cow-pox, it has never served to protect man from variola or cow-pox. Which strange conclusions, M. Bouley observes, are in contradiction to the entire history of vaccination, and might, on that ground, be readily overturned. — *Recueil de Med. Vet. d'Aout*, 1852.—*London Veterinarian.*

HONORARY DEGREES CONFERRED.

It affords us much pleasure to announce that the honorary degree of M. D. has been conferred on Prof. Charles M. Wood, and Prof. Robert Wood, of the Boston Veterinary College, by the Eclectic College of Medicine, Cincinnati, Ohio. This is a compliment which the professors of a sister science can well afford to pay, for they are indebted, *analogically*, to us, trenching on our physiology and pathology for the knowledge they have gained of the various functions of the animal economy. Galen, a student of nature, confined his dissections entirely to quadrupeds, and so much value did he attach to their dissection that he was led to observe that, "If learned physicians have been guilty of gross errors, it was because they neglected to dissect animals." The Greeks and Arabians confined their dissections also to brutes, and the *patron* of medical science has given us the anatomy of the *ape*, for that of man. Those vessels which play so important a part in the animal economy, known as the lacteals and absorbents, were first discovered in kids, and the œsophagus and valves of the heart; the fallopian tubes, the organs of sound and respiration, the thoracic duct, the salivary glands, were all discovered in the process of dissecting animals.

The possibility of restoring suspended animation was first tried on brutes; also, the effect of ligature on nerve and artery; the experiments as regards the effects of different fluids and substances on the blood and solid parts, were confined to the inferior orders of creation. Observations on the organs of taste were based on the same *inferior* platform — the dissection of brutes. The lachrymal ducts; the peristaltic action of the intestines; and, in fact, most of the important operations, now successfully practised on the human subject, were first tried on nature's menials. Sir Astley Cooper, one of the most distinguished surgeons, whose memory Britons delight to honor, performed most of his operations: first, on the *inferior* orders; lastly, on man. Hence the professors of human medicine can well afford to be complimentary to the men who are now actively engaged in making other discoveries and in promulgating a knowledge of the fundamental principles of veterinary science, and who have had the moral courage to risk their reputation, and the enterprise to embark their fortunes in giving respectability to a science which, on this side of the Atlantic, has never been received with that favor which its real merits demand. It is gratifying to know that there is no State in the Union where the services of a veterinary surgeon are so highly appreciated as in good old Massachusetts, and it affords us much pleasure to record the liberality manifested by the faculty of the Eclectic College in favor of our respected colleagues, and the editor of this journal has also the pleasure of acknowledging a similar compliment.

CANINE CURTAILMENT IN MEXICO.—The editor of a journal, published in the city of Mexico, in view of the practice prevalent in that locality, of cutting off the tails of the canine species, indulges in the following eloquent dissertation, which we translate for the benefit of our readers: "What an absurd and barbarous act it is to deprive a dog of his tail! It is, in fact, to cut out his tongue, for a dog speaks much less with his tongue than with his tail. With his tail a dog not only expresses gratitude, as did Fido, but hope, solicitude, courtesy, desire, love, obedience, anger, shame, defiance, fear and gaiety. It is clear, therefore, that in cutting off a dog's tail we deprive him of the power of speech." We should conclude that after the publication of the above, bob-tailed dogs would become less numerous in the city of the Montezumas.—*Town Talk.*

HOSPITAL FOR THE CURE OF DISEASED QUADRUPEDS.—The University of London have just come into possession of £20,000 invested in the three per cents by the late Thomas Brown, of Dublin, to an hospital for the investigation and cure of diseases of quadrupeds and birds useful to man.

THE HORSE.

THE strength of an animal is in proportion to the size and vigor of its lungs. Hence the enormous power of the lion. Every one is familiar with this fact as displayed in the human family. A man with a broad breast and shoulders, (in good health) possesses great physical power, whilst weakness may always be observed in an opposite form. In applying this subject to the horse we involve a principle which I have maintained from the outset is of the highest importance, viz: his strength and endurance.

A proper development therefore is this respect deserves marked attention. If a horse is broad between the fore legs, breast full, and his ribs round out immediately behind his fore legs, giving the body an appearance of rotundity (in opposition to being slab-sided) you have excellent marks of muscular power. The chest of an animal containing the vital and moving power bears the same relation to him in many respects as a locomotive does to a train of cars. If the engine be small the load must not be very great, and if strength is wanting the load must be proportionate. The muscle, of course, is another important item, but on this subject I need not dwell, as the most casual observer will soon learn the difference between a full and a scant development in this regard.

The gaits of a horse are important, as they are generally transmitted in some degree to the offspring. Activity and style of action *generally* accompany a good constitution. A horse with a *perfect* form (according to our ideas) seldom, if ever, paces. As we know that all things originally come from the hands of our Creator in a state of perfection, I am disposed to think that nature never taught the horse to pace, until deteriorations in the race produced *imperfections* in the form, and then with some this gait became natural. The rump of the pacing horse is generally steep. The hind legs are often crooked and the breast is also narrow. Pacing, however, is a pleasant gait for a riding horse, and pacing animals are in much demand, and command high prices. But for long journeys I would much prefer a smooth trotter, as being less fatiguing both to horse and rider. I like to see a bold, fearless eye, and the head up. In fast pacing, a horse must have his head down in order to bear on the bit, and he generally becomes habituated to this practice. Pacing in muddy roads is also very slavish, hence, if a horse *cannot* trot I consider this feature objectionable.

Some consider that after a mare gets too old to be profitable for a work animal, she may still be used advantageously for breeding, but this is an erroneous idea. A horse or mare either, having become superannuated are rendered incapable of bringing forth a healthy and vigorous offspring. For this reason the best colts are

produced when the animals are in full vigor of life. The offspring of aged animals on either side, besides being weakly and delicate when young, often have an old look, especially about the eyes, and are sometimes hard to keep in order even when grown. It will be remembered, however, that the age of a horse depends much upon his treatment through life. Some horses are older at ten than others are at twenty. Avoid breeding to very old horses. — *Valley Farmer.*

☞ A cow case was lately tried in Mount Vernon, Ohio, lasting five days, and employed four lawyers and about one hundred witnesses. The queerest thing about it was that the plaintiff not only swore to the identity of the cow (and calf) but brought eighteen other witnesses who also identified them; among them the man who raised the cow, a woman who had milked her, and several who had owned her. The defendant swore with equal positiveness that the cow was his, and proved it by twenty witnesses equally as respectable and of equal opportunities for information. The defendant got the case, and the cow and calf.

Mules Instead of Horses.—In Cincinnati, Ohio, mules are taking the place of horses in omnibus lines, express wagons, &c. The *Commercial*, of that city, says they are equally tractable, cost less by 20 or 40 per cent.; they consume 40 per cent. less food, are 33 per cent. more durable, and move with a steady, unyielding celerity, that recommends them to all who have tested their merits.

Hogs in Kentucky.—The annual assessment of the number of hogs in Kentucky has been progressing some time, and thus far shows a large gain over the previous year. The State Auditor has received returns from forty-eight counties, of the number of hogs assessed, by which it appears there is an excess of 120,000 over the previous year. This includes a little less than half the State.—*Rural New Yorker.*

"Well, *Doctor*," said a chap suffering with the toothache, "how much do you ax for the job?—Guy! but you did it quick, though!" "My terms," replied the dentist, "are one dollar." "A dollar for half a minute's work! One dollar—thunder! Why, a doctor t'our place drawed a tooth for me two years ago, and it took him two hours; he dragged me all around the room, and he lost his grip half a dozen times. I never seed such hard work—and he charged me only twenty-five cents. A dollar for a minute's work! Oh, git out! you must be jokin'!"—*Germantown Telegraph.*

REMARKS ON THE PUBLICATION OF RECIPES — WOLF TEETH — HOOKS IN THE EYE, &c.

[Written for the American Veterinary Journal by Prof. Charles M. Wood.]

Mr. Editor, — The Editors of certain newspapers, in various parts of the country, are accustomed to publish, occasionally, recipes in their papers for the cure of diseases in animals. We also sometimes see recipes for the cure of certain diseases of men. In almost every case, such publications tend to do more harm than good; for diseases are liable to be mistaken, and a remedy for one disease may prove the reverse for another. But supposing the disease to be accurately ascertained, in too many instances the remedy proposed is worse than the disease. The propensity to *try* supposed remedies at home, in preference to consulting a regular physician, is very strong; and we should not probably err when we say, it causes one-third of *all* the diseases submitted to the examination of medical men. Some of the recipes long in use are so absurd, that we should suppose the common sense of the people would have immediately rejected them. But it is not so. There seems to be an infatuation on the subject; and the same medicine which has killed a case is instantly applied to another.

We would be happy to admit that the present age has grown some wiser than its predecessor; but still the absurd remedies for disease in man and animals are not entirely exploded. They are all tinctured with either ignorance or barbarity, and, we should think, would soon convert a barn-yard into a slaughter house.

If the Editors of papers would reflect, that an incalculable amount of injury may be done by the publication of these quack "nostrums," they would desist from the practice. They may be assured that regular practitioners do not always publish their modes of practice, nor their medicines, in the newspapers, because they know that diseases must first be accurately ascertained before a proper remedy can be applied. And, to do this, requires the presence of an experienced medical practitioner. It requires the eye of a skilful man, and the wisdom of a practical physician, to detect the true disease amidst symptoms common to many diseases, and then, experience only can suggest the safest and most certain remedy.

If the Editors of newspapers who, in all matters with which they are acquainted, are constantly giving true information to the people for their great benefit, would be cautious in communicating any but scientific remedies for the ailments which often prevail, they would entitle themselves to the gratitude of the people. They would be the means of much good, especially when certain diseases become epidemic, the remedies tried and found successful, by scientific practitioners, would be very acceptable and useful.

And we are forced to declare, that none other can be relied upon; for we never yet saw a quack who did not boast of his great skill, and who had not some favorite medicine which he administered to all sorts of diseases. Nor did we ever find one of these practitioners who could speak of his practice without either stretching the truth, or stating what was not true. No confidence can be safely reposed in their declarations; for in this, as in all other matters of science, the truly learned and experienced man never boasts, but speaks of cases and their treatment cautiously and diffidently. He knows how often diseases, usually managed with ease and certainty, become, through peculiar states of the atmosphere, or some other cause, most difficult to cure.

Mr. Editor, these remarks have been proposed from reading a recent number of the "Country Gentleman." It was a reply to a communication on "*Wolf Teeth*" in the mouths of horses. The writer relates a case of disease of the eye of a favorite young mare which, he says, caused total blindness. He luckily met with a person who informed him that the cause was "wolf teeth;" and upon examination of the mouth of the animal, he actually found a tooth adhering to the first grinder on the side of the mouth opposite to the eye affected. This excrescence was removed with an *iron bar* and a *hammer* in a moment, without any apparent pain to the animal; and soon after the operation, (as he says,) the eye became apparently cured. But in a short time it showed strong signs of the old difficulty. As no more *wolf teeth* could be discovered in the mouth the animal was thought to be doomed, so far as seeing was concerned. But seeking advice from a man skilled in *all* kinds of cases to which horse flesh is liable, he pronounced it to be a "hook!—not hook and eye; but a *hook* in the eye. This he called a fleshy substance on the inside of the eye-lid, tipped with a hard point, which scratches the eye-ball, causing irritation, film, and consequent blindness. We are then told, that this "*hoax*" (for such it really is,) is more difficult to be removed than the extracting of the *wolf tooth* with a crow bar and hammer. Next comes the mode of securing the animal; and great caution is said to be necessary to prevent the animal from starting, as it might cause the operator's knife to wound and ruin the eye. Then the animal is made fast to a hole in the side of a barn—the head, covered with a blanket, should be held firmly inside the barn by two men. Then comes the operation. The finger is put between the hook and the eye-ball—the hook resting upon the finger nail—then, with a small, keen blade, the hook is cut out as near the root as possible. The eye thus wounded, he says, will be sore; and we should think that there could be no doubt of it. Now for the subsequent treatment—the frequent application of cold water! (Hydropathique.)

The animal, (as it appears,) had been "hoaxed" *three times*, at intervals of from six months to a year; yet, the writer is of the opinion that one thorough operation would have been sufficient. And he then sagely remarks, that the eye has not regained its clearness entirely. But, he says, the sight is not wholly lost! which is indeed wonderful. The last "hook" was removed two years ago; and, he says, there has been no re-appearance. In closing his article the writer says, "these are facts — the opinions of writers on the subject to the contrary, notwithstanding." It is clear to us that he has been pretty well *hooked* himself.

Now, Mr. Editor, this substance in the eye of the horse, called the haw, or *hook*, is known to anatomists as the "nictitans membrane," and is an appendage to the "retractor oculi," or retractor muscle of the eye, and on which its action depends. It is cartilaginous, situated behind the inferior canthus, between the eyeball and the side of the orbit. In a healthy condition the cuticular margin of this substance is commonly black — which part is only visible externally. In disease of the eye this membrane, or cartilage, becomes swollen; or its projection may be caused by the action of the retractor muscle drawing the eye inward to escape the irritation caused by the light. And thus the nictitans membrane is forced over the eye, acting, as it were, as a third eyelid, for wiping away dust or other foreign bodies. Horse-owners, mistaking effect for cause, argue that this membrane, which is more readily seen when the eye is diseased, must be the cause of *all* the *trouble*; and then they immediately secure the animal to a "hole in the side of the barn," and, armed with needle and thread and a small keen blade, extirpate, by piece-meal, the supposed offending substance sometimes by *three* different operations. And thus the supposed remedy becomes itself a disease which they cannot control.

In "Mason's Farrier Improved," a writer says, the "hooks" is a substance growing upon the inner edge of the washer, or caruncle of the eye; that it causes great pain to the eye, tightness of the skin, stiffness of the hind legs — and finally, a general spasmodic affection of the whole system. All this is to be cured in the following manner, viz.: by securing the animal and removing the *hook* — being careful to impress upon the reader that the piece cut must not be larger than one-fourth the size of a fourpence-half-penny. Another piece meal operation. Subsequent treatment — The eye should be washed with salt and water, the legs, up to the belly, to be bathed in equal parts of vinegar, spirit, and oil, or fresh butter. The food should be bran and oats, with a spoonful of sulphur and saltpetre. And a cure is promised in four or five days. He further says: "Great care should be taken not to cut too large a piece from the caruncle, as it disfigures the eye and sometimes produces blindness."

In an old number of the "American Farmer" we find the following in a communication from W. V. Murray. It was published in 1830, and shows the absurdity of the above treatment. "Before I was acquainted with this subject I had two fine horses sacrificed to this mistaken and ruinous operation. Ignorant quacks do not know the horse has a membrane, peculiar to the animal, which is at pleasure drawn over the eye. The enlargement of this by fever produces the appearance, which, in jocky slang, is called the 'hooks.' Reduce the fever by depletion, such as bleeding and purging, and the hooks will disappear. That is, the membrane will be restored to its natural size and office; which is, to clear the eye from dust, &c. I need not say the cutting out of this membrane is unnecessary, as I have proved the uselessness of the operation by restoring a horse without it."

Thus we see, that Mr. Murray has, years ago, declared what we now sustain. And if some of our practitioners had more acquaintance with the writings of those who have gone before them, and did not suppose that everything which they had not themselves seen was something entirely new, they would be much wiser than they are, and would save the journals from the communication of wonders and miracles. Much benefit may be derived from notices of any new and peculiar feature of disease. Its successful treatment by any one (qualified) of the profession will save years of experiment, and of failure. The veterinary journals are open to all, for a small fee; and no man who desires to advance his own interests, or would acquire the confidence of the public, should fail to be a constant reader.

DESTRUCTION TO HOUSE BUGS.—The French Academy of Sciences is assured by Baron Thenard, that boiling soap and water, consisting of two parts of common soap, and one hundred parts of water, by weight, infallibly destroys bugs and their eggs. It is enough to wash walls, woodwork, &c., with the boiling solution, to be entirely relieved from this horrid pest.

"DIDN'T you guarantee, sir, that the horse wouldn't shie before the fire of an enemy?"

"No more he won't. Tisn't till after the fire that he shies."

LIQUID manure is of great advantage to growing crops.

A CERTAIN preventive to attacks of mosquitos, black flies, &c., is said to be—glycerine, 4 oz., oil of peppermint, 2 1-2 drachms; oil of turpentine, 4 drachms. The face, neck, hands, in fact all parts exposed, to be rubbed with the mixture.

SULPHURIZED OIL PAINT.

At a recent meeting of the Society of British Architects, J. B. Baines stated that by subjecting 8 parts (by weight) of linseed oil and 1 part sulphur to a temperature of 278°, in an iron vessel, he obtained a species of paint possessing singular preservative properties. Applied to the surface of a building with a brush it effectually keeps out air and moisture, prevents deposits of soot and dirt, and preserves the beauty of the stone, wood, or brickwork to which it is applied.

It has long been known that a portion of sulphur can be dissolved in oil, but until recently such a composition, as a paint or varnish, has attracted no notice, in fact, its preservative and impervious qualities when dry were unknown. It is well known to chemists that sulphur (the substance employed to give *body* to the oil) is unalterable in the air, and is not acted upon by moisture, hence its quality as a preservative for coating the outside of structures exposed to the weather. It is capable of preserving plaster of Paris figures exposed to the air; also monuments and buildings of the brown freestone, which are liable to detrition from the action of the weather. It is stated that it improves the color of the stone to which it is applied, as well as preserves it, therefore it is a most useful paint, and deserves to be very generally employed.—*Brunswick Telegraph.*

SHALL WE EAT OUR HORSES?

The question has many times been raised, whether horse-flesh is a proper article for human food; and the high prices of beef, pork, mutton, fish, fowl, and game, have given a new impetus to the discussion. It is contended by some that, because the Tartar rides and drives and then eats his horse, and because the Laplander works and then eats his reindeer, and because the people of civilized countries use, work and eat their sheep, cows and oxen, we should eat our horses.

The most important point to decide, with those who have taken this subject into their heads and stomachs, seems to be the *palatability* of the thing, and as experiments are now making on a somewhat extensive scale, the matter may perhaps be ere long decided, at least so far as it is a question of appetite merely. The French are taking the lead in this investigation, as the following paragraph attests:—

"Another horse-flesh dinner among the *savans* has been the topic

of conversation in the French capital. The dinner consisted of a bread soup of horse broth, boiled horse-flesh, (five hours cooking,) ignamas of China stewed in butter, dabs with Dutch sauce, and ignamas, (a Chinese root like a potato,) boiled for twelve minutes in water and salt *vol-au-vent d'amourette*, made with the spinal marrow of the horse, a chine of horse (*filet de cheval*) roasted, a truffled turkey, and a pile of *a la mode* horse-flesh. The soup was pronounced excellent, having a flavor which beef broth does not arrive at; the boiled meat could not be distinguished from beef by any outward token and the taste was nearly the same. The *vol au vents*, Dr. Yvan states, would not have disgraced an imperial table. The roast meat was extremely rich in gravy, and emitted a peculiar aroma not unlike that belonging to good venison. In short, the horse was unanimously pronounced a fit animal for human food."

With all due deference to the judgment of the *savans*, we had a little rather not eat "that noble animal, the horse," and by Heaven's blessings we won't, so long as we can get either bread, apples, or potatoes.—*Life Illustrated.*

ITEMS FOR THE SPORTING WORLD.

[Selected from the Spirit of the Times.]

OUR HORSES IN ENGLAND.—STAKES IN WHICH THEY ARE ENGAGED.—July 30th.—Pryor and Pryoress. Goodwood cup, at Goodwood; 40 subscribers. Two miles and a half.

August 6th.—Lecompt and Pryoress. Champagne stakes, at Brighton; 20 subscribers. One mile.

August 19th.—Pryoress. Chesterfield Handicap, at York; 22 subscribers. One mile.

August 20th.—Pryor and Pryoress. Ebor handicap, at York; 58 subscribers. Two miles.

August 27th.—Pryoress. Herefordshire Handicap, at Hereford; 31 subscribers. Two miles and a quarter.

September 3d.—Pryor, Pryoress and Lecompt. Warwick cup, at Warwick; 24 subscribers. Three miles.

DEATH OF BLACK HAWK MORGAN.—A friend informs us that this well known son of Mr. Hill's original Black Hawk died at Claremont, N. H., a few days since, at the age of ten years. He was owned by A. B. Atherton, Esq., of Claremont, and was esteemed one of the best colts ever got by old Black Hawk—strongly resembling his sire in color, form, speed, gait, and dispo-

sition. Mr. Atherton declined an offer of two thousand dollars for his horse one week before his death! He leaves behind him several fine colts in Claremont and vicinity, all of which are now held at high figures. Mr. Atherton has another superior Black Hawk stallion, now six years old, very fast, jet black, and very like the old horse, in all respects which will supply the place of the deceased animal, and which will be kept at his stables, hereafter, at Claremont, for the improvement of stock. This last named horse is out of a superior mare, and for size, beauty, and general characteristics, shows the true Black Hawk blood throughout. He is now in his prime, and Mr. Atherton is fortunate in possessing so valuable an animal to take the place of the noble horse he has just lost.

TROTTING ON LONG ISLAND BETWEEN B. M., ROSE OF WASHINGTON, AND B. M., FLORA TEMPLE. — The following summary of the race is found in "Porter's Spirit of the Times."

Wednesday, July 8th. — Purse and stake $1,000; mile heats; best three in five.

H. Woodruff's b m Rose of Washington (in harness)	1	1	1
J. D. McMann's b m Flora Temple (to wagon)	2	2	2

TIME.

	Quarter.	*Half.*	*Mile.*
First heat	37 1-2	1:18	2:30 3-4
Second heat	37 1-8	1:16	2:39
Third heat	37	1:14	2:37 1-4

The following is an extract from the report of the "New York Herald": — "Flora Temple on this occasion was not in condition to trot a race with a good second rater, and to match her against such a mare as Rose of Washington showed a great want of judgment on the part of the gentlemen who has control of her, or a wanton disregard for the fortunes of those who back her the heaviest in all her engagements. The bare announcement that 'the mistress of the turf' was again about to make her appearance on the track, after being excluded from all the purses given this season, was enough to bring out all her admirers to witness her performance; and hundreds of strangers who had heard of her 2:24½, but had never seen her, went to the Centreville Course with expectation of witnessing something worth the time and money to be laid out on the excursion. Those persons were sadly disappointed; for, as we said above, Flora was brought on the track unfit to trot and unable to win, and still her infatuated followers wagered thousands on the result, ranging from even betting to one hundred and seventy-five on her beating one of the best mares, barring old Lady Suffolk, that Long Island ever produced."

ANSWERS TO CORRESPONDENTS.

H. P.—"Fracture of the pelvis." The mare will have to stand in a "box" stall for some time. You may apply a blister over the region of the hip joint, yet after all a "*long rest*" will do more good than any external application. The principle symptoms are drooping and sinking of the quarter, accompanied by excessive lameness. The diagnostic symptom is *crepitus*,* which you may not be able to detect. The part however may be bathed daily with some astringent.

J. E.—Oats and sweet hay are probably the best food for your horse; fat is not essential to good health in the adult, especially when used for fast work; you probably are aware that all fast runners should have as little fat about them as possible.

I. S., Illinois, enquires, "*What ails my cow?*" The best advice we can give you is to enclose a two dollar bill to the address of some *certified* veterinary surgeon, (this is the usual fee,) describing all the *noticable* symptoms, and, if you think proper, ask your family physician to examine the cow, and forward a synopsis of his diagnosis; by so doing, you may probably find out *what ails your cow*, and ascertain the best mode of treatment. You can make a selection from the following list, all of whom are *certified* and *qualified* veterinary surgeons: Prof. Charles M. Wood, Boston, Mass.; Prof. Robert Wood, Lowell, Mass.; Prof. A. S. Copeman, Utica, N. Y.; Prof. George H. Dadd, Boston, Mass.

E. J.—The burthen of proof is on you to show that the horse was diseased at the time of purchase. If you cannot do this, you had better "*compromise.*"

M. R.—The person whom you have employed to treat your horse is perfectly ignorant of the science of veterinary medicine, and no veterinary surgeon would consent to touch the case, much less hold a consultation, until the ignoramus be dismissed.

A. R. S.—This Journal was never intended to be used as a common sewer for any one to discharge their venom into, therefore if you want to have a "*fling at your* opponent," you must apply elsewhere.

E. P. Wood, Northampton.—Your communication is on file for next number; sorry we could not crowd it into this. Your theory of a disease of the character described supervening on Divine Providence, is decidedly wrong. Providence has nothing to do with the ills that afflict men and horses; however, we shall be glad to hear from you at any time.

* *Crepitus.* Grating of the edges of fractured bones.

FRIEND CROSBY, of Andover, Mass., informs us that a society is just about being organized, in Essex County, for improving the breed of horses. Success to the enterprise, say we.

EDITOR'S DRAWER.

Our thanks are due to the editor of the *Atlanta Medical Journal*, for a copy of "An Address Introductory to the Third Course of Lectures, in the Atlanta Medical College, Georgia; by J. Boring, M. D., Professor of Obstetrics, &c." Published at the request of the students. The subject is, "the Use and Abuse of Tobacco." This interesting production, from the pen of one competent to judge of the evil effects of this narcotic vegetable on the system of man, should be read by all persons addicted to its use.

We have also received The Provincial Agricultural Association's Prize List, for the Twelfth Annual Exhibition, to be held in the town of Brantford, Sept. 29th, 30th, Oct. 1st, 2d, 1857. Open to all Canada.

To Samuel Thorn, Esq., of Thorndale, Washington Hollow, we are indebted for a copy of his catalogue of his "Short Horned Stock." A copy of the "Physo Medical Recorder," for July, is also received.

Secretary B. P. Poore has our thanks for a copy of the programme and premium lists for the "Fifth National Exhibition by the U. S. A. Society, to be held in the city of Louisville, Kentucky, Sept. 1st, 2d, 3d, 4th and 5th, 1857.

We acknowledge also the receipt of a copy of a catalogue of Fluid Extracts Prepared in Vacuo, by Henry Thayer & Co., Cambridge, Mass. If Messrs. Thayer & Co., will send us a few specimens of their extracts, we will make trial of them on our equine patients, and speak of them as their merits deserve.

HORSE AND HORSEMANSHIP.—Messrs. Phillips, Sampson & Co., Boston, announce a splendid work on the horse, by Henry Wm. Herbert, (Frank Forrester,) entitled "Horse and Horsemanship of the United States and British Provinces of North America." The work will embrace a complete account of the origin, history, breeding, driving, and general management of the horse, and will be illustrated with steel-engraved original portraits, on India paper, and numerous wood engravings. It will be published in two imperial octavo volumes, of 1100 pages, and will be ready for delivery in the course of the next month. From the great expense attending such a work, it will be issued by subscription only, price $10.

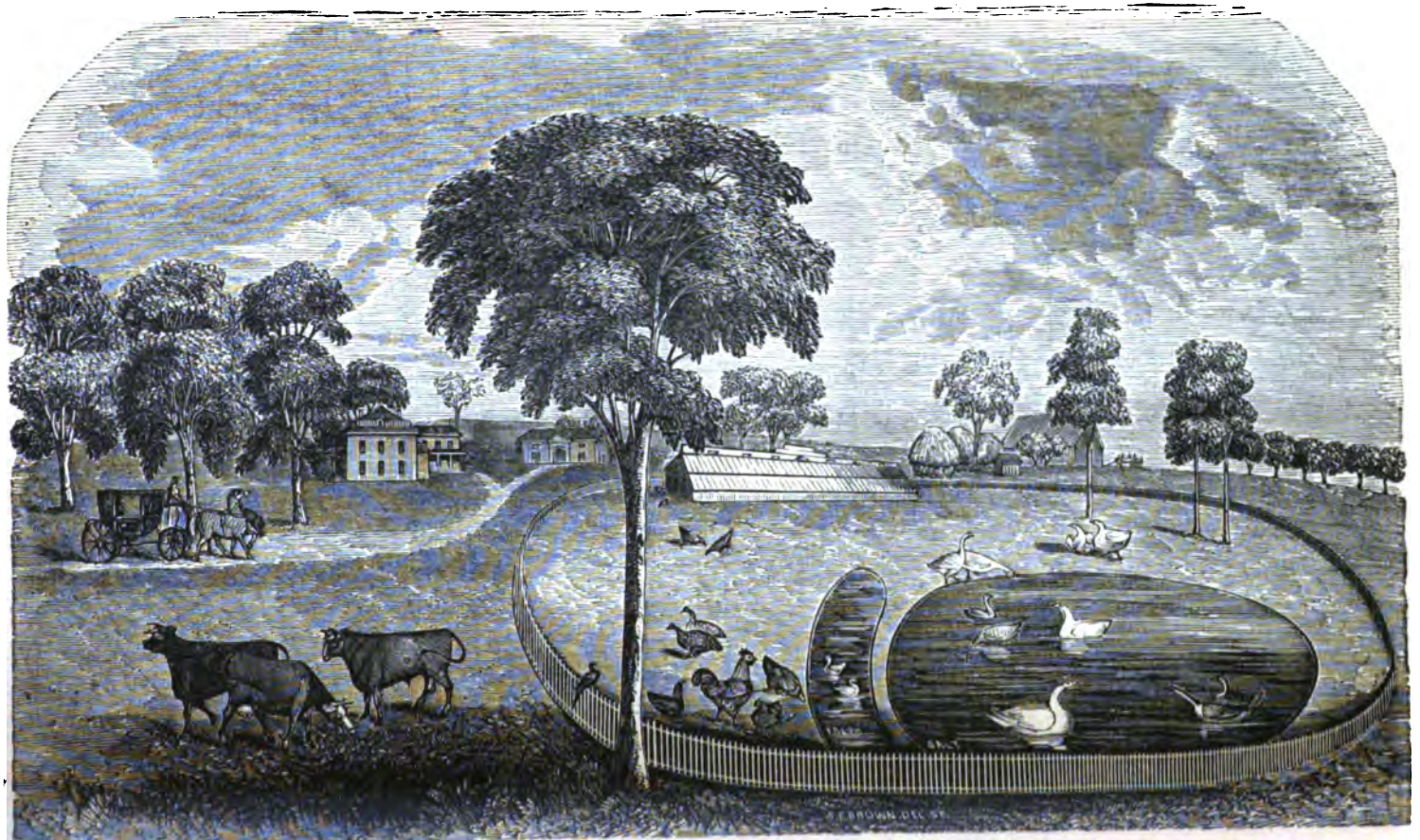
MEDICAL JOURNALS.—Any of our readers who are desirous of obtaining first rate medical journals, can make a selection from the following list:—Medical and Surgical Journal, Boston, Mass., price $3.00 per annum; Medical Examiner, Philadelphia, Penn., price $3.00; Medical and Surgical Journal, Philadelphia, price $1.00; Medical Journal, Buffalo, N. Y., price $2.00; Medical Counsellor, Columbus, Ohio, price $3.00; Medical Chronicle, Montreal, Canada, price $2.00; Medical Journal, Atlanta, Georgia, price $3.00; Hall's Journal of Health, New York, price $1.00; Medical World, Boston, Mass., price $2.00; Journal of Medicine, Manchester, N. H., price $1.00; Medical Reformer, Mellville, Pa., price $1.00; College Journal, Cincinnati, Ohio, price $1.00; Medico Chirurgical Review, Philadelphia, price $4.00.

TO OUR READERS.

In the present number the reader will find an article from the pen of Prof. C. M. Wood. His theme is one of considerable interest to professional men and owners of live stock. The subject is handled in a delicate and creditable manner, and we earnestly recommend our readers to give it a careful perusal.

The "*first part*" of an article on spavin appears also in this number. It is extracted from the pages of the *Ohio Farmer*, for which paper it is contributed by Dr. Jennings, of Cleveland, Ohio; and in our next we shall furnish, from the above source, the *second* article, and finally the concluding one. Dr. Jennings is an active co-worker for the advancement of veterinary science, and he is now in possession of the most extensive cabinet of morbid anatomy to be found in this country, which is a proof of his devotedness to the profession.

To VETERINARY SURGEONS.—The Dean of the Faculty of the Boston Veterinary College, will be glad to acknowledge the receipt of any morbid specimens, as donations, to their cabinet.



VIEW OF SAMUEL JAQUES, JR.'S, GRAPERY AND POULTRY YARD.

THE AMERICAN

Veterinary Journal.

DEVOTED TO THE DIFFUSION OF VETERINARY KNOWLEDGE.

Edited by GEORGE H. DADD, Veterinary Surgeon.

Published by S. N. THOMPSON & Co., 97 Union Street.

PRICE, ONE DOLLAR PER ANNUM.

VOL. II. BOSTON, MASS., SEPTEMBER, 1857. NO. 9.

VENTILATION.

(*Continued from page* 239.)

A house not ventilated should be considered as untenantable, for it is an abode unfit for a living, thinking being to dwell in; it might, however, answer as a depot for the deposit of exotic plants, which acquire fragrance and beauty by absorbing carbonic acid gas, &c.; but it is a great mistake to compel the precious buds of our race to respire the noxious vapors of an air-tight dwelling, for instead of promoting health, strength, beauty of form and soundness of intellect, we are adopting a sure means to produce the reverse effect.

Parents look on, and in agony witness the sufferings of their loved ones just on the verge of an early grave; they observe the mandate of death written in unmistakable characters on the pale cheek and attenuated form of their "*idols*," and they can also, with what some persons have termed "*Christian* fortitude," submit to the irreparable losses which are constantly occurring, under a *false* conviction that it is the "dispensation of a wise Providence;" but we seriously urge such persons to abandon this *injurious* doctrine, and inquire of themselves if they have fulfilled the obligations which the laws of physiology impose on all; and if they have failed to perform their duty in this matter, what hath Providence to do with it? "God helps those who help themselves;" hence, if people trifle with vitality, and prove recreant to the laws of their being, they must expect to suffer. The so-called "dispensations of Providence" are nothing

more nor less than the wages of sin, or, in other words, the penalty which almost invariably follows neglect of duty to ourselves. In the language of an honest tar we are admonished not to place too much trust in Providence — "If you trust to Providence, you will be shipwrecked on Rhode Island." The sailor evidently meant to convey the same idea as that involved in the preceding quotation, which is attributed to the *eloquent* man, Kossuth.

The penalty, which sooner or later follows the continual re-respiration of an impure atmosphere in an unventilated apartment must be paid. The pale-faced monster may be kept at bay for a time, but finally he claims his victim.

Long life, when not hereditary, is the result of an intelligent use of the various organs and functions of the animal machine, by keeping every one in a state of equilibrium, we promote health, secure length of days, and thus guard against the *vengeance* of "Providence." Destroy the harmony which exists in the animal economy, and physical shipwreck of the mental body is sure to follow.

It is a matter of importance, therefore, that every house and sleeping apartment should be thoroughly ventilated, and parents should see, as a matter of duty incumbent on them, that their tender buds of promise are bountifully supplied with the "breath of life"—a pure atmosphere. A celebrated physiologist propounded the following grave question: — "Can any thing be imagined more at variance with the fundamental laws of life than the repeated respiration of a local atmosphere, where the principles of ventilation have been entirely disregarded? In this respect some of our citizens are more humane to the inferior orders of creation, for in the construction of some of their stables they have inaugurated a thorough system of ventilation."

An impure atmosphere not only interrupts the normal action of the lungs, but in a majority of cases the digestive organs become first affected. Medical men endorse the fact that dyspeptic symptoms are the first indications of disease germinated in an impure atmosphere, and that the lungs suffer only after the digestive system has been for a time disordered. It is physiologically impossible for human beings in a sound and healthy state of body and mind to exist in the midst of a close, ill-ventilated atmosphere. An individual possessing a strong constitution may withstand the bad consequences of occasionally breathing an impure atmosphere, but even *he* will suffer for a time.

"He will not experience the same amount of mischief from it as the invalid, but will be perfectly conscious of a temporary feeling of discomfort, the very purpose of which is, like pain from a burn, to impel him to shun the danger, and seek relief in a purer air. The comparative harmlessness of a single exposure is the circumstance

which blinds us to the magnitude of the ultimate result, and makes us fancy ourselves safe and prudent, when every day is surely, though imperceptibly, adding to the sum of the mischief. But let any one who doubts the importance of this condition of health, watch the dyspeptic, the pulmonary, or the nervous invalid, through a season devoted to attendance on crowded parties and public amusements, and he will find the frequency of headaches, colds, and other fits of illness, increase in exact proportion to the accumulated exposure, till, at the end of spring, a general debility has been induced, which imperatively demands a cessation of festivity, and a change of scene and air. This debility is often erroneously ascribed to the unwholesome influence of spring,—a season extolled by the poets, not as a cause of relaxation and feebleness, but as the dispenser of renovated life and vigor to all created beings."

The effects of impure air are more strikingly manifested in infancy. A few facts will illustrate this: About a century ago, the work houses of London presented the awful result of twenty-three deaths in every twenty-four infants under the age of one year; and this frightful devastation was allowed as beyond the reach of human remedy. But finally the buildings were ventilated, and a better system of management adopted, and the deaths were speedily reduced from twenty-six hundred to four hundred and fifty per annum. Here, then, was a total of two thousand one hundred and fifty deaths occurring yearly in a single institution, chargeable, not on *Providence*, but against the ignorance, indifference and cruelty of man. At the end of the last century, during the space of twenty-one years, out of ten thousand two hundred and seventy-two sick children sent to the Infirmary, only one thousand seven hundred and twelve recovered. Deficient ventilation was not the only cause, but it was one of the chief causes of the dire calamity. And even now, in this country, it is said that every tenth infant perishes within a month of its birth. Striking as these facts are, and others which we could quote, many are still blind to the instructions of experience, and the warning of outraged nature. But they go on constructing churches, schools, dwelling-houses and other buildings, without bestowing a thought on the physical wants of man.

Let us then hope for a better state of things—not only hope, but labor, to produce a reform. This is the age of improvement. It seems that the genius of man is just emerging from darkness to rejoice in the meridian brightness of perfection in the arts and sciences, and while discoveries are leaping upon discoveries in such rapid succession, we must not overlook so important a matter as ventilation. In view of further illustrating the bad effects arising from repeated respiration of a local atmosphere, we quote the following paragraph selected from Dr. Arnot's work. He informs us that

"Twenty or thirty young women, engaged in the manufacture of lace, in the city of London, tried the experiment of keeping themselves warm in a small room by making it air tight, and depending on the heat given off from their lungs and bodies in lieu of fuel, which they could not afford to buy. In the course of a few weeks their countenances became of a deathlike paleness; at the end of a couple of months death visited these unfortunates, and carried off nearly half their number, and several others were only reserved to die a more lingering death of typhus fever."

These unfortunates were to be pitied; but what shall we say of those who know the evil and have the means to guard against it, or that mean economy or thoughtlessness which is to be observed in the construction of dwelling-houses, lecture-rooms, public places of amusement, and houses of worship?

(*Conclusion in our next.*)

CHEMICAL SPECULATIONS.

UTICA, N. Y., Aug. 8th, 1857.

PROF. G. H. DADD, — *Dear Sir:* — I have ventured to send you a few lines on an article contained in your Journal for this month, entitled "Fallacy of the theories of food maintained by Liebig and Carpenter," by Prof. J. R. Buchanan. If you think them worthy of a place in your valuable Journal I shall feel obliged to you by your inserting them. I am, Sir, yours, &c.,

A. S. COPEMAN.

We are informed by Professor Buchanan that "the doctrine of Liebig and his followers are based upon *chemical speculations*, instead of *physiological facts*, and are remarkable examples of the success of a bold dogmatic theorizer. Were these fashionable chemical theories true, the consumption of saccharine and oleagnious aliments would keep up a high temperature of the body, unhealthy and unpleasant in hot climates, but would contribute nothing to the nourishment of the constitution. In fact, neither sugar nor oil has any heating effect, thus removing them from the calorific class to which they have been assigned by Liebigian physiologists."

One of the many errors into which Prof. Buchanan has fallen is that of supposing that an animal living on food rich in sugar, &c., "the temperature of its body must be high." Now the temperature of the body of an animal is *regulated* by a variety of *causes*, viz:— the number of respirations in a given time, the temperature of the atmosphere, the rapidity of the circulation of the blood through the lungs, &c. The important influence of these "elements of respira-

tion are evidently either not understood or are entirely lost sight of by the learned Professor. The practical farmer needs no chemist to tell him that animals fatten readily if their food contains starch, sugar or oil. Has nature no object in laying up this store of fat? Let the hybernating animal answer. He goes to his sleep late in the fall of the year "fat as a bear," and awakes early in the spring "lean as a rake." During the winter he constantly inhales by his lungs oxygen, and exhales carbonic acid. We know to a certainty that his organism has no power of forming carbon out of substances which do not contain it. Fat contains no less than eighty per cent., and since this fat cannot be detected in any of the secretions or excretions its disappearance cannot be otherwise accounted for.

Again, Professor B. says,—"We know that when we take very active exercise we thus increase the discharge of carbonic acid and water, and at the same time our discharge of urea is increased, and our temperature elevated. Hence it appears that the formation of urea is a consequence of the previous combustion of the *hydro*-carbonacious elements of the blood."

We should like to *know* the "chemical theory" by which the Professor makes "it appear that the formation of urea is a consequence of the combustion of the carbonacious elements of the blood," for this must be one of the "*physiological facts*" not to be found in Carpenter's physiology.

Proceeding a little further, we find the following remarks: "The whole theory of Carpenter that *animal heat* results in carnivorous animals simply from the *waste of their tissues* is a gratuitous assumption based only on the fallacy that *protean materials* must *form tissues* before they can undergo *combustion*. We may therefore consider it sufficiently certain that the nitrogenous aliments are the best materials for the formation of tissues, and the elevation of the animal temperature. We can support life on a much smaller quantity of *animal food* (flesh) than by *mixed diet*."

It can make no difference whatever, whether "animal heat" results from the waste of tissues or of blood—the primary source not only of heat, but of urea must be the food. The nutritive process in the carnivora is seen in its simplest form. This class of animals live on blood and flesh, but this blood and flesh is in all its properties identical with their own. Neither chemical nor physiological differences can be discovered. Thus, when an animal lives on flesh, this is dissolved in the stomach, the protean compounds are taken up and finally become blood. And we here repeat it is a question of not the least importance whether the *protean material form tissues* before undergoing combustion, as this would in no way influence their value as sources of heat. Hence, the "gratuitous assumption," true or false, amount to nothing.

We know an adult man expires thirteen ounces of carbon in twenty-four hours, and this carbon must be supplied by the food. If we examine the relative amount of carbon in pure flesh, (beef,) and wheat-flour, (mixed diet) we find the following results:—

100 pounds of beef contains 74 pounds of water, and 17 pounds of "protean material."

100 pounds of wheat flour contains 55 pounds of starch, and 15 pounds of "protean."—*Bergelius.*

This flour contains nearly an equal amount of protean, leaving 55 pounds of starch to "set off" against 74 pounds of water. One pound of starch contains as much carbon as three pounds of flesh. Its great value as a source of heat cannot for a moment be doubted.

ON THE CONTAGION OF ITCH OR MANGE.

Itch or mange is occasioned by the presence of a parasite known as the *acarus*. A series of experiments have lately been made on various animals, in order to ascertain whether or no the human *acarus*, could be communicated to animals, it seems, that they cannot. The experimentalist therefore offers the following conclusion as the result of his investigations, which we find in the London "Veterinarian":

"It may therefore be deduced from these divers observations, that the insect of the itch of man is able to survive for some variable time upon animals; that it conceals itself at once underneath their epidermis, without making grooves through it; a circumstance ascribable in the one case to the fineness of the epidermis, which becomes detached in scab as the insect burrows under it; in the other case, to the quality of the nutritious juices, which, although fit for sustenance for a certain period of the life of the acarus, and especially in the rabbit, is not sufficiently grateful to detain them in one place, like that of man.

"One acarus, in fact, does not abandon a groove once made—nothing induces it to decamp: everything conspires to make us believe that it dies upon the spot after having travelled about 1-25th part of an inch during the twenty-four hours, and pierced the epidermis covering it with small apertures through which the young larvæ hatched along the train of its eggs may make their escape.

"The transmission of a single acarus suffices in man to produce itch. The animals we have submitted to experiment have all received a greater or less number of insects without experiencing the slightest indication of the disease.

"Let us, therefore, conclude that the communication of itch (or mange) from man to animals, and from animals to man, is impossible, though the diseases of the skin in animals often prove the occasion of some affection of the same organ in man."

TAIL AIL.

On looking over our note-book for the year 1852, we find that we have already given the public our views regarding "tail ail, or tail slip," (*terms not of our coinage.*) Therefore, at this late day, it is unnecessary to go over the ground again, as, probably, most of our readers have seen and read the article referred to. In view, however, of redeeming a promise made in the last number of this Journal, to discuss this subject, we offer the following brief remarks:

Some persons have an idea that when a cow shows symptoms of partial or complete paralysis of the hind extremities that she is the subject of some disease located in the extremity of the tail, which they have, contrary to the principles of the science of nosology, denominated "*tail ail.*" A soft spot is found at the end of the tail, (this is a feature of every *well* cow's tail) and this is said to take the strength out of the cow's back, and produce paralysis. The remedy is, either to amputate the caudal appendage or slit open the soft spot and stuff in tar, pepper, salt, or whatever remedy neighbor so and so recommends. It seems a pity that the poor animals we are now writing about cannot, like their masters, receive the benefits resulting from the investigations of scientific men, in improved methods of treating disease. However, it is gratifying to know that the errors of the past are fast "*dying out,*" and that the days of ignorance are numbered.

The tail is once in a while the seat of a local affection arising from blows, &c., or it may be the seat of a cutaneous disease; but neither one nor the other can be of so grave a character as to produce paralysis of the posterior limbs. The soft extremity of the tail may also occasionally become congested or else œdematous, (dropsical.) But these states of the part would not justify a man in cutting off the tail, for the limbs are often found in the same conditions, and no one would ever think of lopping them off, for the remedy would be worse than the disease, and so far as the tail is concerned in being the seat of local congestion, or œdema, there is no disease at all, and therefore does not require local treatment. But we are not discussing the probabilities of diseases of the tail. This is not our purpose. We only aim to show the folly of making the cow's tail an indicator of the various diseases of her body, and also that of confounding a disease of the nervous system with a slight congestion of the tail; and further, that folly of arguing that the cow's strength is taken out of her back, &c., because the end of her tail is soft.

If the tails of neat stock, or those of any other animals become diseased, in the name of humanity let them be prescribed for. But we do hope that those who read this article will never be caught pry-

ing into the end of the above useful appendage for the purpose of demonstrating that which never existed.

Almost all animals said to have the *tail ail* are laboring under various forms of disease remote from the tail, and however diligent men may be in performing their barbarous operations on the same, the disease under which the animal suffers, perhaps located in either the brain, spinal marrow, stomach, liver or pancreas, entirely unsuspected, may progress to a fatal termination, while an uneducated cow leech is amusing himself by taking unwarrantable liberties with the uncomplaining animal's tail. We are often told that animals after being thus operated on, get well. Very likely. Some animals will endure the most cruel torture, and we once saw a cow, in apparent health, who a fortnight previous drank a pint of white paint. Such cases we look upon as nothing more nor less than lucky escapes. We shall close this article by introducing a selection from "Youatt on Cattle":—

Mr. Youatt, when treating of palsy, thus alludes to *tail ill, or tail slip:* "In many parts of the kingdom palsy is traced to a most ridiculous cause. The original evil is said to be in the tail; and all maladies of this kind, involving the partial or total loss of motion in the hind limbs of the animal, are classed under the name of tail ill or tail slip. Our friend Mr. Dick, of Edinburgh, has taken up this subject in a very interesting point of view, in the fourteenth number of the Journal of Agriculture; and the public are much indebted to him for dispelling a false, injurious, and cruel superstition. The farmer and the cow leech believe that the mischief passes along the cow's tail to the back, and that it is on account of something wrong in the tail that she loses the use of her legs; and then some set to work and cut the cow's tail off, while others, less cruel or more scientific, make an incision into the under surface, and allow the wound to bleed freely, and then fill it up with a mixture of tar and salt, and we know not what.

". . . . Mr. Dick, with a kind consideration for which he deserves much credit, condescends to reason the case with these foolish people; and what he says is so much to the purpose, that we cannot refrain from introducing it here: 'The disease, in ordinary cases, is said to consist in a softening about the extremity of the tail, and is to be distinguished by the point of the tail being easily doubled back upon itself and having at this doubling a soft and rather crepitating kind of feel. But what is the real state of the case? The tail is lengthened out to the extent of about three feet, and is formed like a common whip. Towards the extremity, the bones terminate gradually, becoming insensibly smaller as they proceed downwards; at this part is said to be found a soft place — the *tail slip*. Beyond this, again, a firm cartilaginous portion is found, covered with hair to

brush off the flies within its reach. Now, why have we the long columns of bones, — the termination with a soft space of a few inches, — this thickened, hard, cartilaginous part at the very extremity, and that extremity covered with hair, but with a view to form a whip, to drive off with the greatest possible effect the insects which wound and torment the animal?

'Here the column of bones forms the shaft or handle of the whip, and the soft part the connection between the handle and the thong, while the thickened extremity may be easily recognized to represent the thong, and the hairs to form the lash or point; so that we have a whip, and so complete a one that the coachman may borrow a lesson from its construction.' We trust, therefore, that our readers will never be found again looking at the tail of a cow for an explanation of palsy or any other complaint; for we believe that this tail slip is supposed to be connected with various other maladies.

"It may, however, be asked, Is not relief sometimes given by these operations on the tail? Very probably. We do not know what would make a cow get up and use her limbs, if the punishment of the knife, and the rubbing in of tar and salt failed."

HOG CHOLERA.

A visit paid us a short time ago by our esteemed friend B. P. Poore, Secretary of the U. S. Agricultural Society, reminded us that we are expected, under the advice of Hon. C. L. Flint, and other gentlemen appointed for the purpose, to make a report on the "*hog cholera.*" Up to the present moment we have not been able to procure one particle of evidence that the epizootic, so-named, is the *real* malady which of late has proved so destructive among hogs. The reports which have reached us through the medium of our agricultural exchanges, are very contradictory; for example, some of them show that the intestines of a great majority of those animals examined after death, are occupied by quantities of worms; in others, symptoms of a typhoid character are observed, and an equal number fed on distillery slops are supposed to die from the effects of strychnine, which agent, some contend, is used in the process of manufacturing whiskey. Hence, having no opportunity of making an *autopsy*, we are left in the dark. Now, if any of our subscribers have anything to offer in reference to the prevailing epizootic among this class of animals, they will confer on us a great favor by communicating the same at their earliest convenience. No doubt some of the veterinary surgeons who subscribe for this Journal are in possession of facts calculated to aid us in composing the *expected* "*report,*" and we shall be pleased to hear from them on the subject.

We shall also pay respectful attention to any communication emanating from the pens of those persons who are pecuniarily interested in this description of property. All we ask of them is to give us *facts*, inform us of the mode of management, the kind of food furnished, the mode of attack or primary symptoms, and the appearances after death. Being in possession of such data, we can concoct a very respectable *report*. Who will aid us in this matter?

INTERESTING CHEMICAL DISCOVERY.

It is notorious that horses, more especially racers and hunters, are subject to inflammatory diseases, and it is observed that grooms are short lived. This has been ascribed to the air of unventilated stables being strongly impregnated with ammonia, an alkali that may be classed amongst the most powerful stimulants, the constant respiration of which predisposes to affections of the lungs. Various means have been tried with a view to the absorption of this subtle poison, but hitherto without obtaining the desired result. During the last session of the Royal Agricultural Society of England, a paper was presented to the council by Mr. H. Reese, description of a plan for purifying the air of stables, by a mixture of gypsum or sawdust with sulphuric acid. This mode is said to be at once safe, simple, and efficacious. Mr. Reese made some experiments in the extensive stables of Mr. Evans, of Etons, the results of which are stated to be quite satisfactory. The stables, were, in the first instance, strewn with gypsum (crystalised sulphate of lime) coarsely powdered; but though the ammonia was evolved with the wetted straw, no trace of it was visible after two days' exposure when examined with slaked lime. The stables were then strewn with the gypsum, moistened with sulphuric acid, and when examined next morning, every portion was found to have absorbed sufficient ammonia to emit its peculiar pungent odor when brought in contact with slaked lime. The stables had lost their close unhealthy smell, and, to use the words of the grooms, appeared to be quite sweetened. As it was evident the gypsum acted merely mechanically, affording a convenient absorbent surface for the acid, some further experiments were made, substituting sawdust for gypsum, which were attended by still more favorable results. The prepared mixture should be laid upon trays, as the acid is considered likely to injure the horses feet. One part of sawdust will readily absorb three times its weight of acid solution, which should be mixed in the proportion by measure, of one part of sulphuric acid to fifteen of distilled water. The ammoniacal salt makes an excellent manure, but it should not be mixed with the straw until after removal from the stable.—*Cal. Farmer.*

PROFESSOR SIMONDS' JOURNEY IN SEARCH OF THE CATTLE MURRAIN.

A very interesting meeting of the Council of the Agricultural Society took place last Wednesday, when Professor Simonds, who had been deputed by the National Agricultural Societies to visit the districts where the Cattle Murrain was supposed to be raging, gave a report of his tour and of his investigations. His journey led him through Belgium, Holland, Holstein, Mecklenburg, Prussia and Austria, to the borders of Hungary. It was only at the extreme distance which he reached, 1,500 miles from England, that he met with the disease, and then in a form, and with results, proving it to be entirely under the control of the means employed to hinder it from spreading. Among the particulars which he gathered on his road the most interesting relate to the existing health of the live stock in the countries traversed—the traffic from these countries tending to the spread of any contagious malady—and the measures adopted by the Government of those countries to check its spread.

Under the first head he learned that there is at present no contagious disease among cattle in Belgium—none in Holland—none known to the vetefinary authorities of Utrecht, who being armed with government, authority, receive complete and constant information on those subjects;—that there has been and is considerable prevalence of pleuro-pneumonia in the neighborhood of Hamburg traceable to the purchase and introduction of 150 cattle from Hungary some two years ago—but that there is hardly any pleuro and no Steppe murrain in Mecklenburg which had been declared especially infected; that there is at present no Steppe murrain in Prussia—It had indeed last year occurred near Breslau, but that neighborhood now is free. After a journey of 1500 miles the infected district was reached at length, and a residence for a considerable period in the midst of the disease, using the facilities provided by the authorities for its examination, gave Professor Simonds ample opportunity of becoming acquainted with its nature.

As to our liability to infection through the importation of live stock from the continent Professor Simonds informs us that the importation from Belgium is almost exclusively of calves, 2010 calves and only 10 oxen having been imported thence last year—that the appointment of veterinary inspectors on our own shores has made the exporters of live stock from Holland exceedingly careful as to the health of the cattle sent us by them—that Holland sends out so many cattle in all directions, to France and Saxony as well as England that she is an importer not an exporter of hides—that there is no exportation whatever from Lubeck; indeed, that as far as regards

cattle, England never has received and never will receive a single head from any Baltic port—so that in that matter the Order in Council forbidding importation thence was entirely a mistake—that, as to the importation thence of hides, Lubeck receives only 6000 hides annually from Russia, which however are dried, prepared and harmless—that it receives, indeed, 80,000 hides a year from Mecklenburg, but these are dried and prepared in Lubeck, and sent not to England but to Switzerland—that, above all our great safeguard lies in the extraordinarily strict governmental supervision of infected districts, localities, and individual farms. The man who owns a glandered horse cannot sell a horse till after six months from the declared departure of the disease—the farm tainted either with the pleuro-pneumonia or with the Steppe murrain is kept in such edtire isolation that one chief difficulty of the mission lay in escaping from the infected district, after having once entered it,

The disease itself—the Rinderpest or Steppe murrain—which it was the object of the mission to examine, differs very materially from the descriptions of it which have hitherto appeared. An animal which had been condemned and slaughtered was disinterred after two days, and examined; its flesh so far from having undergone that rapid decomposition which was declared characteristic of the disease, was still sound and even "healthy" An animal when first attacked exhibited merely the symptoms of a slight chill—there was hardly an increase in the pulse, no difficulty of breathing —no tenderness of the back to the touch—the main symptom consisted in a slight trembling or spasmodic twitching of the muscles of the neck, shoulders, and hind quarters. Towards night the animal refused all food, but no fever existed and the breathing continued unaffected. During the next day the extremeties were cold, the coat was staring, a thick discharge took place from the eyes and nostrils, diarrhœa became violent, the strength was prostrated, and on the third day the animal died.

The history of the disease in the locality visited proved it to have been imported, and the means employed to confine it, which consisted simply in the enforced isolation of the infected farm, were successful; the only instance of its occurrence anywhere else in this neighborhood arose out of the cordon confining it having been broken. The whole history while it certainly proves the extremely fatal character of the disease, is at the same time calculated entirely to remove the extravagant fears which had been entertained of our own liability to it. So far from its being likely to traverse the long intervals by which we are happily separated from it, there seems no fear of its reaching even adjoining farms so long as communication of every kind is cut off. Professor Simonds was in nothing more emphatic and decided than in declaring his belief that it was always imported

from contact, direct or indirect, with infected animals—and nothing struck his audience more forcibly than the wonderfully rigid and vigorous character of the isolation and confinement to which infected districts are subjected by all the continental governments as soon as cattle disease of any contagious kind appears.—*Agricultural Gazette.*

ARE SPAVIN AND RING-BONE CURABLE?

Written for the Ohio Farmer, by DR. JENNINGS, V. S.

Continued from Page 246.

Veterinary authors generally regard bone spavin as a very serious injury, destructive to the utility of the animal, and reducing his value very considerably, as is frequently the case, in consequence of the blemishes. I do not, however, consider spavin so serious an injury, or as destructive to the horse's usefulness as most persons do, the bad effects, or lameness, being in a very large majority of cases but a temporary ailment. As an evidence of this fact there are at this day thousands of spavined horses travelling our roads, and yet the best and most experienced veterinary surgeons the world ever produced would not be able to determine the fact, so long as the animal lives. Such assertions may be considered wild, extravagant unwarranted, and imaginary. Still it is undisputable. In all such cases we find no external enlargement, but on the contrary a clean smooth limb; the reasons for this will be given hereafter. In the absence of enlargement, or spavin-bunch, as it is sometimes called, on the inside of the hock joint, horsemen are unwilling to believe that spavin exists. If all who are in doubt will call on me I will show them very many such specimens anatomically prepared, which will at once dispel all doubt regarding it. In other cases we find external enlargement on the front part of the hock, and the horseman looks in vain to find it, simply because the books tell him that the enlargement will be found on the inside of the joint; and in many cases this is the fact. My experience teaches me, however, that the enlargement appears almost as often on the front part of the hock as it does on the inside, and when it exists in front of the hock it is seldom noticed by experienced horsemen; and if their attention is called to it, they are not willing to believe it spavin. It may be asked why veterinary authors have overlooked so important a fact. I know not, unless it is for the same reasons that they have omitted the diseases of the horse's teeth in their works on the subject, which are of very common occurrence, viz: the want of

proper anatomical investigation. This may be easily accounted for in the difficulty and inconvenience of handling our subjects, it being more than many men are willing to undertake. In consequence of these difficulties many veterinary students have graduated at colleges in Europe without dissecting a subject. I trust that the veterinary colleges in this country will pay more attention to this branch of medical knowledge, and our knowledge of the science will increase more rapidly than it ever has done heretofore. We are indebted to France for many valuable discoveries regarding the diseases of the horse, simply because they pay more attention to the anatomy of the horse than any other nation in the world. Anatomy is universally regarded as the ground work of all medical knowledge, without which no man is safe in the practice of medicine. Dissecting the hock-joint alone will not lead the student to a knowledge of the facts set forth in this article; he must go further and macerate the bones, until all the soft parts leave their attachments and the bones are left entirely bare; he then sees the disease to advantage, and in such a way as to prevent the possibility of mistake. This is anything but a pleasant task to perform, one that few men are willing to undertake, and without which they cannot be masters of their profession, at least as far as osseous diseases are concerned. I have taken great pains to investigate this matter, my whole soul being in the work. I love it, and for many years made my living in the capacity of a manufacturer of anatomical and pathological preparations, during which time many thousand valuable pathological specimens passed through my hands, and in consequence of which I have at the present time the largest private collection of the kind in the United States. All who desire are respectfully invited to examine them at my residence on Detroit street, west side. In this collection may be found spavins, ring-bones, and all other osseous diseases in all their various stages; and were it not for these proofs, I should hesitate ere I made public the assertions I have done, knowing that they are in opposition to popular opinion. Spavin arises generally from a strain or jar, or a blow upon the hock-joint, causing an inflammatory condition of the cartilaginous cushions which cover the articular surfaces of each bone, or of the ligaments that surround the joints and bind the bones together; sometimes both are involved. The inflammatory condition of the joint may be considered the exciting cause of spavin, and if not speedily removed spavin soon follows; the synovial fluid (joint oil) is soon absorbed, the cartilages of the joint are ossified (turned to bone) which, uniting one with the other, form one solid mass, destroying the mobility of the parts involved, constituting what is called anchylosis of the hock joint. This anchylosis or union of bones is not always general, there being in many cases but two, three, or four of the bones involved. When these

changes are confined to the cartilage, we never have external enlargment; and I defy any one to successfully dispute this fact. This I call spavin without any external indication. On the contrary when the ligaments surrounding the joint are converted into osseous (bony) substance, we have in all cases external enlargement. I trust your readers will make this distinction. When the hock receives an injury the course of treatment usually pursued by horsemen, and pretended doctors, is very pernicious. The application of a blister over an inflamed surface must do injury by increasing the inflammation they wish to abate, and in many cases actually producing spavin where it otherwise would not exist. I do not deny that blisters are necessary and useful in such cases, if properly applied, but the idea of rubbing blister ointment on an inflamed surface to reduce it, is like throwing burning coals on shavings to keep them from taking fire. What can be more absurd. The veterinarian, when applying a blister, does it so as to draw the inflammation from the joint to a part where it will do no injury; otherwise it had better not be applied at all.

We think that we have now shown that spavin may exist without external enlargement, and the reason why it is so.

We have also shown why enlargement takes place in some cases and not in others.

We have shown that the bones become united together in one solid mass, forming as it were but one bone, or anchylosis, which no scientific man ever undertook to cure, and if he should, failure would be his reward. Ring-bone is a disease of the same nature as spavin, the location giving it a different name, therefore in speaking of one it is applicable to the other. Contraction of the hoof often is mistaken for ring-bone, and the poor beast is severely tortured in consequence. Contraction of the hoof causes a bulging of the soft parts around the coronet (upper margin of the hoof), causing the hair to turn downwards and inward upon the hoof, giving it much the appearance of ring bone; in all such cases, we find the heels pressed close, and painfully together, hence the necessity of distinguishing between the two before making any application. A certain gentleman of East Cleveland some time last summer was treating a horse for ring-bone by burning it with caustic. Mr. J. Brown, then proprietor of the Croton House, called my attention to the case, and being desirious of seeing the progress made by the applications, I examined the horse and found to my astonishment that the pastern bones were not at all involved, but that it was one of those cases of contraction. I tried to convince the person in charge of the horse that he was in error, but failed to do so, he having cured, as he said, many others in the same way before. Some time after this Mr. B. and himself called to see my cabinet, after which he declared

that he never had seen a ring-bone before and he never would again undertake to cure one. It is just to say that he is not a veterinary practitioner.

It remains for us to show that our efforts in the treatment of these diseases are only palliative, and to give a history of the treatment of spavin in all ages. Also that those who pretend to cure these diseases, are either ignorant of the pathology of the diseases, or they are guilty of gross imposition, which I will endeavor to do below.

I presume that the readers of the "Ohio Farmer" are ready to agree with the opinions I have ventured to lay before them, regarding these diseases. I have shown that the removal of lameness in these cases, depended upon uniting together the diseased bones, and to this end all treatment is directed. Hence our efforts are but palliative. But these performers of miracles call this cure—who can deny it? These diseases have been treated variously in all ages, since the introduction of veterinary medicines. Blistering and firing, probably are the most effectual if properly managed, and are recommended by almost all authors, If simple inflammation of the joint exists, it is not proper to apply a blister to the injured parts, as the increased inflammation would cause osseous deposits, or bony transformation, to take place. Will our readers think it strange, then, that these applications sometimes produce these diseases.

Again, if spavin does exist, then the application of a blister to the diseased parts is proper. Some, also would say firing, but the red-hot iron I never use and therefore I do not recommend it. The punching operation has been practiced by persons at different times, but never received much favor in consequence of the cruelty of the operation. For this operation, an instrument was used, made with a number of teeth in it, which was struck with a mallet into the spavined joint, with considerable force; and by this means some pretenders have claimed a cure. In some cases, where there has been much external enlargement, they have been removed by chipping off with a mallet and chisel, with a view of removing the blemishes; and this is by some men called cure.

At the London college, the seton has been used with very decided effect in removing the lameness, but no pretensions to cure have been made. I presume it will be understood, that I do not consider the removal of lameness a cure by any means; neither do I consider an inflammation of the joint, spavin, nor ring-bone. A class of men, calling themselves Veterinary surgeons—some, however, do not aspire so high, and are content with Farrier—travel about with flaming bills, "Spavin and Ring-bone cured or no pay." They tell you that they will cure your horse, and remove the blemish, and what do they do? They simply throw dust in your eyes and shut them up. They injure your horses, and make you believe them cured; or, in other words they completely psychologise you, and you

believe anything they may tell you. They show you a piece of the skin that has been removed by caustic applications, and tell you there is the spavin, and you believe it, proving how credulous you are. They often tell you that your horse is spavined when he is not, and yet you believe it. They tell you that ring-bone exists. when perhaps it is only a tumefaction of the coronary ligament, and you believe it; and why should you not? For there is certainly enlargment. And thus these men make their living. Are they practicing an imposition, or are they ignorant of the pathology of these diseases? If the latter they are equally guilty, for they can assign no good reasons for their ignorance. Thousands of men in these United States, can testify to having had valuable horses injured by such practitioners.

It may be asked how do these caustic applications affect the horse? All who have had their horses operated on, are aware that a round hole soon shows itself over the spavined parts, after the paste has been applied making it very sore and painful to the horse; This hole is caused by burning away all the parts that cover the spavined surface, and a portion of the bone also, thus weakening the joint, and reducing the value of the animal very considerably; and this is as far as they dare go, and they know it. Better, then, had you let your horse go with the blemish upon him, and be content with the removal of the lameness.

This is no fancy sketch, but plain unvarnished truths. I stand ready, at any time, to act on the defensive, whenever any of the advocates of spavin cure may sum up more courage to expose the opinions I have here expressed.

I believe that I have now accomplished all that I promised in the beginning, and have placed horsemen on their guard against imposters. Seeing what spavins are, preserve the bones; and when a man talks of curing them, see whether he knows of what he is talking. They may rant and tear as much as they please, but pin them down, and keep them pinned. If these men will call on me, I will take pleasure in showing them what they never have seen before, viz; spavin, and ring-bone in their nude state.—*Ohio Farmer.*

EDITORIAL REMARKS.

Dr. Jennings appears to be a matter-of-fact man. He goes in for the truth, and nothing but the truth. This *challenge*, as we understand it, is nothing more than a tournament with the *leprous* herd of bipeds who are constantly boasting of their ability to "*curè*" spavin and ringbone, to *make the limb smooth*, and thus remove *the eye-sore*, (altered structure) *or osseous deposit*, when it exists in the bones or above the coronary ligament, as in case of ringbone. The men he proposed to "tilt a lance" with, are out of the pale of the profession, destitute

of a knowledge of the pathology of the above diseases, and of course incompetent to judge of the actual condition of the parts both before and after the application of their *one idea* curative agents. But unfortunately he has broached a subject which will subject him to professional criticism, for the most distinguished veterinary surgeons claim the honor of curing spavin. Their *cure* amounts to nothing more than restoring the horse to comparative soundness and usefulness, so that the subject shall be free from lameness and thus be enabled to perform the ordinary duties of an ordinary horse. The curability of spavin is therefore founded on this proposition. The common acceptation of the term *cure* may be illustrated as follows: A man breaks his leg, say the *femur* or thigh bone. In course of time, and by means of suitable appliances, the fractured edges unite, still there is a loss of continuity in the physiological mechanism of the shaft osseous structure, and perhaps some abnormal osseous deposits are observed around the region of unity. But what of this? If the individual can perform the ordinary labors of a working man, can walk, run, and jump with his accustomed alacrity, or, supposing he cannot perform these feats quite so well as before the accident, that does not alter the case provided the union of the bone is perfect, and the limb is not shortened. The testimony of the patient himself goes to show that under the skill of the physician he is restored to usefulness. The cure is, therefore, restoration of function.

The pathological condition of the parts is not in the order of consideration, for spavin, fracture and lesion of both bone and muscle necessarily result, in altered structure, which no man can obviate nor transform. Veterinary surgeons restrict their notions of cure to restoration of function. We never knew an educated surgeon to contend for restoration of structure. Hence, among the members of our profession, there should be no difference of opinion on this subject.

BLOODLETTING IN EPILEPSY.—The following constitutes the whole of the report by a special committee "On the Effects of Bloodletting in Epilepsy, Convulsions, &c." It was presented to the Indiana State Medical Society, at its last meeting, by Dr. Hutchinson, chairman of the committee. No one can complain of its prolixity.

"Having examined the literature of the subject, I find that none of our recent authorities have any confidence in bloodletting as a remedy in epilepsy, but, on the contrary, an opposite mode of treatment is advised; the disease being one of debility instead of plethora. The question being altogether a negative one, and unsuitable for a report, I wish to be discharged from further duty."—*Boston Med. and Sur. Journal.*

IN La Vendee the "hunters" hang a branch of holly (the *alex acquifolium*) above the manger of their cows, to preserve the animals from ringworm. The "hunters" are poor deluded mortals.

"BOSTON VETERINARY INSTITUTE."

Communicated by Prof. Charles M. Wood.

Mr. Editor: — As another commencement of the "Boston Veterinary Institute" is near at hand, it seems a fitting time to make some remarks as to the importance of the objects it has in view. Much has been said and written, but still many of the people are unadvised as to the magnitude of the subject. We suppose that few have considered how nearly the number of domesticated animals corresponds with the numbers of the population. Indeed, we shall find, upon enquiry, that they are more than thrice the number. But, sir, what is the number of Veterinary practioners whose business it is to attend to the cure of the diseases of this vast and valuable stock? Why, sir, there is not one to ten thousand! — perhaps twenty thousand! We mean of physicians who are qualified to minister to their diseases. As to such who undertake the cure of such diseases without qualification, we consider them only as adding to the number of diseases, being pests themselves, and increasing the mortality rather than preventing it.

Before medicine was cultivated as a science, the mortality among the human race was much greater than it was afterwards. Diseases not difficult of cure, became fatal by neglect. Even trifling ailments (as now considered) frequently sent the afflicted to the grave. The advancement of medical knowledge has not only lessened the amount of mortality, but has tended to diminish human suffering to a degree almost beyond calculation. We may say the same of veterinary medicine. The mortality from disease has been greatly reduced. The number of nearly useless animals, supposed to be uncurable, vastly lessened, and the degree of health and vigor in animals in use has been remarkably increased.

Now to form a judgment as to the value of veterinary medicine, as applied by men of erudition and cultivated judgment, we have only to inquire the amount of money vested in property of this kind. We speak within bounds when we say that in Massachusetts alone, it amounts to many millions, and the numbers of this stock in Massachusetts are much less, in proportion to its population, than in many other States in the Union. We see, then, what a vast property is vested in domestic animals throughout this great country. The Hon. Robert C. Winthrop stated in his speech at the banquet of the Agricultural Exhibition in this city, in 1855, that two years before, there was estimated to be, in the United States, more than twenty millions of horned cattle, more than twenty millions of sheep, and more than thirty millions of swine. He said nothing about the number of horses, but I have since learned from the third

annual Report of the Secretary of the Board of Agriculture, that the number of horses in Massachusetts alone was as follows: in 1856, of horses, 80,321, valued at $7,284,889,00; the value of cattle, $4,892,291,00; of sheep, $309,843,00, and of wool, 106,000.

If such is the fact, let us reflect, that this vast amount of property is, when affected by diseases, (to which they are almost as liable as the human race) entrusted to the care and to the medical treatment of men wholly incapable of distinguishing diseases, and utterly ignorant of the means of cure. It is most remarkable that the peculiar shrewdness of the New Englander has not discovered what a difference may be made in his property by the employment among his diseased stock of a physician who knows both the disease and the means of its cure, and one who knows neither.; And, beyond all interested calculations, how can he justify himself from the charge of inhumanity in employing men who use the nearly exploded process of tormenting without use, and killing through sheer ignorance? *We* are desirous of appearing to the world as a humane people, we build refuges for the destitute, and hospitals for the sick. We house and feed our imbecile paupers, so that existence is not only tolerable, but comfortable. And we give liberally to alleviate misery everywhere, whenever the appeal is made to our charities. But when we come to the treatment of our domesticated animals, we seem to be under an infatuation, and to suppose that a business which can only be learned by long study and personal experience, can be known by something like intuition, that a man may be born a horse-doctor, as some are supposed to be born with the "second sight." What vast distress and loss this delusion has occasioned! Of all the sciences, none require more studious investigation, more minute acquaintance with its rudiments, more judicious examination of authorities, and of results, than human medicine, and its sister science, veterinary medicine. A blind man may as rationally be expected to judge of colors, as a medical practioner without learning, to judge of diseases. Let us present, for your consideration, not an uncommon case: A poor man is the owner of a horse, by whose labors, in connection with his own, he sustains himself and his family. His horse, his great dependence, is taken ill, and, as the unskilful work cheaper than the skilful, he calls in the aid of an "ignoramus," to minister to the animal. Well, the horse rapidly declines, and soon dies, and the unwise owner has not only suffered a grevious loss, which his present means cannot replace, but he is called upon to pay the bill (heavy, of course,) to the very man who was the cause of his misfortune. To enlarge the comparison, he is not only "hanged," but pays the "forty shillings," to his executioner! And the man of wealth, too, who has invested in most valuable stock a portion of his money, introducing new races from foreign countries,

for the general benefit of his less wealthy neighbors, may lose all the fruits of his enterprise, and all the advantages of his generosity, to the community, by setting the example of preferring a quack in his farm-yard, and neglecting the advice of an instructed physician. There is no doubt that the proceedings of such a wealthy farmer are curiously watched by his poorer neighbors, and that the influence of his example is strongly felt, and produces results for good or evil. If he is a man of sound sense, he is a blessing; but if deficient in understanding, and ever ready to catch at everything new, merely because it is new, he does a great amount of injury among those who, from his position, look up to him. But there is another consideration. If the people *will* encourage the charlatan, they may be certain that, by so doing, they will decide against science and learning; and when they awake from their delusion, (though counting the cost of their unwise decisions,) it will take time, and be attended with many difficulties before any skilful man will venture the risk of trusting to their future encouragement. There is now an opportunity when the wealthy who desire to benefit their State can do so with great and lasting effect. A charter has been obtained from the Legislature, for a Veterinary Institute, and it is in operation. By an institution of this kind, able and instructed men may be sent forth into the country, and the race of ignorance be brought to a close.

But nothing of such importance can succeed unless gentlemen of wealth take an interest in its success, and will give it a helping hand. We do not believe that our liberal, wealthy gentlemen will see an object of such utility fail for want of patronage. And we know from the past that whenever such men say it shall succeed, there is not any fear of failure afterwards. We most earnestly hope that they will think favorably of the new Institution, and by their generously applied means give it a foundation which cannot afterwards be shaken.

Mr. Editor, you will allow me to say that I am not speaking from any personal interested motives as to pecuniary emolument to myself; but as a veterinary practioner, and as one of the teachers of certain branches of study in the institution, I am strongly interested, and most ardently wish it success.

Any man who has lived to the age of sixty years, and has had opportunities of observing the treatment of animals by the tribes of horse-doctors running over the country, if he is a man of common humanity, he will rejoice in the establishment of the Veterinary Institute.

When we remember the shocking scenes we have ourself accidentally witnessed, the tortures applied for the relief of pain, the carving of the flesh, the hacking of veins and arteries, the roasting

of the extremities with hot irons, the horrible drenches of villainous compounds, we rejoice that the day of such monstrocities is passing away, never to return. A veterinary institute is a bulwark against such ignorance and brutality. It sheds abroad not only the beams of science, but the cheering light of humanity; and wherever are found men in whose hearts the love of mercy is cherished, there we shall find the best patrons of the Institute, as they are of every other good and generous and humane undertaking.

INFLAMATION OF THE BRAIN.

[COMMUNICATED.]

On the morning of the 2d of July, 1857, I was called in to see a horse belonging to the State, at the new asylum in this place, said to have been sick some two or three days, dozing, resting his nose in the manger until the night previous, when he had become frantic, and was rearing and thrashing about, bruising himself badly, and some of the time resting his nose on the partition between the stalls as high as he could reach. A man had been called to see him who said he had the botts, and gave him some gin; at the suggestion of another he was bled. My diagnosis was, Inflammation of the Brain. He was standing at this time tied to a tree leaning his head on the halter. His head was excessively hot. I ordered some cold water thrown on it. I then bled him again slightly, and gave him hyd. chlorid, ℥ j., aloes ℥ j., emt. tart., ℥ jj. On attempting to give the medicine, he reared and fell over backwards, where he lay for a few minutes and then got up and began to travel. He had an everlasting propensity to go ahead against anything that came in his way. I put a piece of ice on his head and retained it there in a cloth tied to the halter; rubbed his spine with mustard and vinegar, and on being told that he had eaten some hay during the night, I replied that he must not have the first mouthful of anything. I called again at noon, found him better, stands with his halter slack, and takes some notice of things, gave an enema of salt and water which evacuated the rectum. His pulse was sixty; they were faster in the morning, considerable. I did not count them by the watch the first time I saw him. His breathing is better in the morning, he made a noise like snoring, *stertorous* breathing. He was thirsty and I told them to give him some water. He drank a pailful in the afternoon. I called at night, and he had had two spells of raveing, and was then standing almost as insensible as a block. We could hardly move him out of his tracks. Gave him nit. pot. ℥ jij., aloes, ℥ss. emt. tartar, ℥ jj, and called on the morning of the 3d.

Found him better; gave an enema and aloes ʒ.jj., hyd. chlorid, ʒ j., emt. tartar ʒ jj; continued the emt. tart. once in four hours through the day. In the afternoon rubbed his limbs and spine in alcohol oj, origanum, ℥ jj., turpentine, ℥ jj., put a seaton in the breast dipped in liquid blister. He continued to improve. Called on the morning of the 4th, found him improving; the physic had not operated. Gave aloes ʒ jj emt. tart. ʒ jj., hyd. chlorid, ʒ j. Left for Greenfield to see a famous trot for a purse of $500. Mile heats best 3 in 5. Advertised to come off at 2 o'clock. Paid 25 cents for admittance, 10 for a seat, and after sitting in the sun for two hours with 2500 spectators, found out the horses would not trot, one of the horses had not arrived. This I considered a humbug, for I was shown both horses at 11 o'clock at Joslyn & Eldredge's stable by the owner of one of them. There was, however, a trot for a small purse between a four year colt, and an old track horse called the Weasel. Weasel won first heat in 2:48, second in 2:47; third in 2:48. The track was heavy from the rain the day before, and is a plump mile. The four year old had been driven there from North Adams through the rain and mud the day before, and Weasel hardly beat him at that, the first heat not half his length, the others a little more. He is a good one and did honor to himself and his country on this glorious anniversary. After my return, visited my patient, the medicine had operated finely. Gave a little nit. potash, and emt. Saw him on the morning of the 5th, did not give any medicine, told them to feed him lightly on bran mash and a little hay, and in a few days turn him to pasture; he has continued to improve since that time.

EBEN T. WOOD.

Northampton, July 10, 1857.

DYSPEPSIA.—The best way to insure an attack of this fashionable malady is to follow the example of some of our city "bucks," viz., taking but one meal per day, commencing at daylight and ending just before bed time.

NOTICE TO SUBSCRIBERS. — The publisher of this Journal tenders his thanks to *subscribers* for their promptness in forwarding subscriptions for the current volume; yet there are a *few* who have failed to "pay up." Now, gentlemen, don't be backward, "*but walk right up to the captain's office and settle.*" In these hard times every dollar *tells*. Three hundred and eighty-four pages of *readable*, and *reliable* matter, printed by means of copper-faced type, on first-rate paper, is worth five times more than the publisher asks for it. Delinquents should therefore do the "*fair thing*," and *face the music*, without further dunning.

CORNS IN HORSES.

From the London "Field, the Country Gentleman's Newspaper."

Some weeks since, a letter merely bearing the signature of "A Master of Hounds," was forwarded to "The Field" for Harry Hieover. A letter neither giving the writer's name or address was not likely to be attended to. The writer has, however, since done Harry Hieover the honor to call on him, and the subject of his inquiry was fully entered into. Considering it will make a useful article for the columns of "The Field," I now enter on it.

There are few ailments that lame more, or cause more acute pain to the horse than do corns, if not properly treated, and few that are more easily alleviated if scientifically set about. Corns, I quite believe, are a disease incident to some horses, as I am quite convinced they are to some persons. Skilful chiropodists will so far alleviate their effects, that a man may walk and feel no inconvenience from them: this in no way proves that he cures them—his skill may prevent any inconvenience being felt for weeks, or months, but the disease continues, and in time, less or more, its effects will be found to continue. It is a received axiom that pressure produces corns. I do not conceive it quite amounts to this: the germ of the disease is there and pressure produces lameness; but I am very much inclined to doubt whether pressure would produce a *bone fide* corn in a perfectly healthy foot; it would certainly produce a bruise; but if a corn was not inherent in the foot, I feel clear that so soon as such bruise was found and cured, it would be, like a bruise of any sort, cured radically. If the same improper pressure was applied, of course the foot would be again bruised, again to be cured; and afterwards shoe the horse fairly and well, we should find no more of the temporary ailment.

Let us now consider of what leading characters the foot of the horse consists. There will be found to be the wall, or crust, the sole (covering) the sensible part of the foot, the frog and the bars, which join the crust of the foot at the heel, and form an acute angle there, from whence they run to the narrow point or termination of the frog. It must be quite clear to any one that any sensible part of the foot confined, I may say jammed in, by an acute angle formed by the two different parts, that foot must more or less undergo the pressure spoken of; and it is in this angle between the bars and wall of the foot that corns are inherent, or the bruises I have spoken of are found to exist. It may be asked and very reasonably, as the horse's foot is formed the same on the inside as the out, and the shoe formed the same or nearly so at both heels, how happens it that a corn on the outside is a circumstance of very rare occurrence? The only reason I can surmise is that, from some natural cause, he treads heavier on the inside than the out; and supposing my idea to be

correct, we have not found out any mode to prevent this. Having stated the nature of corns, to the best of my experience, observation, and anatomical knowledge of the foot, I will state other causes that produce pressure besides the being confined in the corner spoken of between the bars and the crust; this is pressure from the upper surface, namely the sole. This, as may be at once apparent, produces the same effect or result as does the accumulation of hardened substance that from time to time thickens on our corn, if we are unfortunate enough to have one. Most persons are more or less quite acquainted with the pain it creates. It is the same with the horse. It would be well for him if we could at once and as effectually relieve him as we can ourselves; but, unfortunately, common blacksmiths do not do this, or even set about it the right way to effectually produce the wished effect. Many persons have remarked that a horse with corns will frequently, I will say generally, go firm and sound for some days more or less, after being shod. The fact is, the cause of lameness *has* been for a brief time removed, that is the corn has been relieved of pressure. Smiths are apt enough to slice away at the frog. They have learned from practice and observation that the upper coat for a certain thickness is perfectly insensible, and have ascertained by practice also how far they may, in the generality of cases, go before they approach the sensible part. I never found a smith who thus acted, who could give a more sensible reason for his cuttings than that "it kept the frog in shape and looked neat" when the new shod foot was looked at. With deference to these gentry, I beg to say it never fell to my lot to see a frog grow out of proper shape, except in a state of disease. I have seen in a common smith's pent-house half a dozen curs waiting for the cuttings from horses' frogs, of which they are inordinately fond.—They might wait long enough at Mr. Field's, of Oxford street, before they got a chance of a "bonne bouch." The closely paring a horse's healthy frog is tantamount to taking a man's comfortable walking shoes off and turning him out on a newly macadamised road in a pair of dancing pumps.

They have heard that the bars are intended to "spread the heels." They were intended for no such thing, but were placed there to support the crust and retain the foot in its natural and healthy shape; what shape it may contract from acute disease is another matter. They are not content to take away as much of the wall, the sole, and the bars, as to place them in the same relative position as regards each other as they were before, but will pare down the sole, leaving the bars standing up a perfect ridge each side of the horse's frog—I suppose from thinking they are better judges of proportion than is or was Nature, who formed the foot. If we send a horse to an inferior smith, and the servant tells him the horse has corns, he usually begins by lowering the wall or crust, whether it wants it or not; he

then holds it necessary to take away a certain part of the insensible sole, whether there is any overgrowth or not. He then comes to the frog, which he works away at till its appearance pleases him; then comes the rasp, to bring if possible the foot to a certain shape. If naturally a spread or wide one, the rasp travels along the out and inner side—the workman, with a knowing look, regarding it till he has probably weakened the crust so far as to render it a matter of serious difficulty and risk to find hold for the nails. This done he sets to work to find the corn. For this purpose a small drawing knife, called "a searcher" is called into requisition; with this (I can find no better term) he *digs* away where practice has taught him the corn is to be expected—namely, the inside heel between the crust and the bar. I should mention that, prior to such anatomical search, in most cases he sets the foot on the ground, and, coming in front, probably says to the servant, with a self satisfied air, "There! his foot looks a very different thing to what it did when you brought him." But to return to the searching. After considerable digging in the corner, and the whole superstructure of sole being removed, the corn is come at, and as it sometimes happens, the sensible part of the foot is come at also.

The smith is satisfied with the shape to which his paring and rasping has brought the foot, and, having discovered the latent corn, or at all events bruise, we must suppose he would have been equally satisfied with his work had he taken a mule footed horse in hand, and by dint of paring away the toes and front part of the foot, had brought it somewhat into the shape of a well formed one. But to the work in hand. Having removed all direct top pressure, he commences fitting on the shoe; the pain is partially removed, that is, so far as super-pressure is concerned; but there remains lateral pressure. This at first may not much affect the horse, and he goes sound or comparatively so for a time. But mark the inevitable result: he has so weakened the superstratum of insensible sole while groping for the corn, that he has deprived the foot of any power of resisting the close approach of the wall of the foot and the bars; he has in fact, counteracted the intent of Nature, which originally was that each part might have the power of performing its appointed function. The consequence is, from the want of the accustomed support the pressure of the shoe at the heel in a few days bends the weakened wall on which it rests inwards, and the shoe finally bears on the corn, and lameness returns with all its pristine grievance. It is true there are some horses the crust of whose foot is so strong that though you diminish inside support, it is strong enough to support the shoe, keeping it from pressure on the ailing part. Where such is the case the horse may go in an ordinary shoe; but where the crust is thin it will not bear the abstraction of the inward support and a strapped or bar shoe will become necessary. We know that

in a general way the undue lowering of the heels is objectionable. So are corns. It therefore merges into this, whether it is better to lower the crust and cut away the bars and heels in a correspondent degree to the quantum of sole we remove, or to leave the horse more than half a cripple; for I consider that in many cases we are left but to choose between the two alternatives.

The difference between a strapped shoe and a bar one is, the latter is somewhat rounded at the heel, the former may be made all but square; in point of fact, they are pretty much the same, the great merit of both being that they pass over the frog, to which the iron part that connect the heels may in the centre be flattened; and to this flat centre may be affixed a piece of shoe-sole leather on the part on which the frog bears, thus giving the shoe a bearing on the frog that greatly lessens that on the heels, and effectually prevents any pressure on the corn, and likewise saves it from hurt or exposure to casualities. It must be quite clear to any one that a horse with a sore corn, if he comes on a projecting sharp and very hard substance, must drop from sheer pain. Whether he falls or not will depend partly on his gameness and resolution, and partly on the quickness with which he brings the sound leg (if he has one) to the relief of the afflicted one. If both feet are afflicted, the necessity of strapped or bar shoes becomes apparent.

There are many persons who, from prejudice, object much to either; they think they have a tendency to contract the foot, and say, pertinently enough, "How can a horse's foot expand with a piece of iron run across the heels that would prevent it doing so?" This would be all very well, if it was a correct representation of the case; but persons must bear in mind that, though the heels of an iron shoe cannot expand, whether it be a common made one or a bar shoe, the horses foot can. It may be objected, and frequently is, How can the foot expand when confined to the shoe by nails? I quite admit the side crust cannot; but let one look at a properly shod foot, they will find the nailing and nail holes cease long ere the heels begin. Again, let any one remove a shoe of any kind after it has been worn three weeks or a month, they will find by the polish and marks on the heels of the shoe that those of the horse have had ample space and liberty to expand, if disposed to do so. Contracted heels and feet arise from various causes, chiefly, I should say, from internal disease, but I conceive it to be rarely the case that a really healthy foot becomes a contracted one from the effects of shoeing alone.

There is another circumstance connected with the shoeing of the horse that probably has never attracted the thought or notice of the casual observer. Let us shoe a yearling for the first time; he naturally feels awkward in his shoes, from various causes, but also from one that strikes but few of us. He has been accustomed to feel his

foot, toe, sides, heels, and frog, bearing equally on the ground. Now by our mode of shoeing and the form of the shoe, we deprive him of (say) one fifth of the support his foot has been accustomed to feel; in fact, by the formation of the shoe we deprive him of support to the frog at all. From this he would feel probably no inconvenience if immediately led into a soft meadow, where the shoe could bury itself deep enough in the yielding surface to enable the frog to get its accustomed support. This is why hunters and race-horses do not suffer from our mode of shoeing. Their principal and severest work is done on soft ground, and this neuralizes what would otherwise be the dire effects of taking all support from the frog. Set the foot on the smooth surface of a well made highroad, you would perceive, as the shoe could make no impression, the vast amount of support of which we deprive the leg of the horse. The frog is an important portion of the foot—an elastic cushion placed at the heel, to take off the concussion that would be otherwise thrown on the sheath of the back sinews—in fact on the sinews, themselves, and all the surrounding parts of the back part of the leg. Much has been said on the subject of "concussions and hard roads." Persons are apt to think the only concussions to be feared is that which affects the foot of the horse on hard roads: this is, I admit, bad enough, but that which arises as regards the back sinews having no support is infinitely more to be dreaded; and I think I am right in saying that, if I had a horse engaged in a gallop match, against time, on a hard road, like the one performed some years back on the Brighton road, he should most unquestionably do it with strapped shoes, well padded with leather for the frog to rest upon; and I am quite sure all horses used on hard roads would go better in such shoes than in those in general use. Fortunately for horses, usual road work is not severe enough or fast enough to render change in the mode of shoeing necessary for sound horses; and many persons are so influenced by appearances, that, rather than use a somewhat unusual shoe, they will use a cripple, that might be made to go with ease to himself and safety to his employer by judicious shoeing. If a man, not conversant with such matters himself, has a horse thus situated, let him send him to a first-rate veterinarian, with permission to shoe him as his judgment directs; he may then depend on it, all that can be done will be to remedy the ailment.

HARRY HIEOVER.

A MOVE IN THE RIGHT DIRECTION.—In a late discourse before the Mechanics' Association of Richmond, Va., Governor Wise recommends the establishment of a professorship of veterinary surgery and medicine, at the Virginia University.

LIQUORICE PLANT.—Several gentlemen have recently reported at the Patent Office their success in cultivating the liquorice plant.

NEW BEDFORD YACHT RACE.

AMUSEMENTS, THE PEOPLE, &c.

The New Bedford Yacht Race which came off on the 13th of August, was a grand affair; it was the occasion of bringing together some of the fastest specimens of this class of naval architecture to be found in the world. A large number of distinguished individuals from different parts of the States, honored the people of New Bedford by their presence, and in return, were handsomely entertained by individuals whose hospitality on all occasions is proverbial.

The people of New Bedford are decidedly ahead of those in some maritime cities; their enterprise and liberality in introducing and sustaining some of those manly sports which tend to preserve a sound mind in a healthy constitution is deserving of great praise. For example they have one of the most magnificent "*drives*" (as they modestly term, the best race course in the world,) located in a situation so charming and healthy, that if some of our pale-faced dyspeptics, were to take a few drives round it once or twice a day, it would operate on them as the "elixir of life." Then there is the well conducted gymnasium, riding school, various places of amusement, &c., &c., all properly conducted and well patronized. In the winter time there is capital fun on the ice, and snow; everybody feels constrained to come out, and face the music of the storm. Out door exercise on horseback and otherwise, is indulged in by all who are able to own a horse, and a vast number of the best specimens of native and superior breeds are owned by the people of New Bedford. The people of New Bedford are great lovers of horses, and so far as our experience goes the services of these noble animals are more highly appreciated, and they receive better care and kinder treatment, than in many other localities we might name.

ANSWERS TO CORRESPONDENTS.

E. H. — *Wolf's Teeth.* — See Professor Wood's article in the last number. The theory is a popular fallacy, and we do not feel in humor just now to attack it, for it will require a lengthy argument to correct the error. Dr. White is good authority; he says: "We sometimes find next the first molars a very small tooth, which farriers call a wolf's tooth. This is supposed, *but without foundation*, to cause a disease of the eyes."

R. E. — *Ticks on Sheep.* — A strong infusion of lobelia may probably destroy them.

J. S. C. — *The paces of a Horse.* — "*Action*" is hereditary, but may be improved, perhaps altered, by judicious training. A "*racker*" would be a hard subject for you to try your skill on.

"*Aloes.*" — The Barbadoes is the only article you can depend on, and we have none to spare at present; will comply with your request when we happen to have a surplus.

H. S. B. — We have ordered a pair of trusses such as you describe. So soon as they arrive you shall hear from us.

"AMMONIA."—You are correct. It is a *volatile alkali*, and you can use it for the purpose designated, and also for decarbonizing the blood.

E. W. — Have answered your communication by letter.

"*Castration.*"—The best method of operating is to secure the spermatic artery by ligature. A ligature around the "*whole cord*" is rather objectionable, although the animal may do well. You may turn the animal out to grass immediately after castration, provided the weather permits.

There is no reason why "*A Doctor*" should not turn veterinary surgeon provided your inclinations lean in that direction. You are probably better qualified than many who now profess a knowledge of the science. We would advise you, however, to attend a course of lectures.

"*Pneumonia.*" — You will sometimes find the lungs hepatized, and a frothy fluid in the bronchial tubes. In cases of long standing you may find both lungs in a state of granular tubercle, at other times a blackened state of the pleura, adhesions, hydrothorax, and granular tubercles.

H. P.—The number of surgeons in the French army is 260. The principal veterinary surgeon has a salary of $500 per annum, with allowances for lodging, necessaries, rations of food, forage and fuel. The salary of the principal veterinary surgeon of the British army is $1,825 per annum.

R. S. — *Capped hock* consists of tumefaction at the superior part of the os calsis, or point of the hock. It does not often occasion lameness, but is a grievous eye-sore. In the *acute* stage refrigerating lotions are indicated. In the *chronic* stage, we resort to preparations of cantharides, or iodide of ammonium.

J. NICHOLSON. — English veterinary works are costly. Morton's Manual of Pharmacy costs ten shillings; delivered here, it will cost you three dollars. There is not a copy for sale in this city. Percival's works, comprising seven volumes, will cost you thirty dollars. We have a set for sale.

C. L. LAUGHLIN, Brazil. — You can blister the part with *acetate of cantharides.*

E. R. — The charter of the Royal Veterinary College was obtained in the year 1844. Hence, *we* are not so much behind the times as you seem to suppose.

Ruptured Stomach. — "Student" wishes us to describe the diagnostic and accompanying symptom of ruptured stomach. Some

veterinarians may contend that an accident of this character is not accompanied by a *reliable* diagnostic symptom; still, they will all agree that the subject of ruptured stomach or intestine is frequently known to assume a crouching attitude similar to the position of a dog when sitting on his haunches, as people term it. This comes as near to a *reliable* diagnostic symptom in a case of this character than any other that we are acquainted with, and on *our* authority you may consider it as such, in lieu of a better one.

The "*accompanying symptoms*," which once occurred in the practice of surgeon Haycock, may possibly enlighten you:

1. Pulse 46, respirations 16 per minute.
2. The eyes of the animal have a peculiar, dull, inanimate aspect.
3. When he is allowed to stand still, he begins to crouch with the hind limbs, and maintains the crouched position for a considerable time.
4. He perspires profusely about the head, the breast, and the left side, and the body generally feels clammy.
5. Occasionally he stretches himself out, as though for the purpose of urinating.
6. If he is made to walk out of the box, he moves his tail violently from side to side.
7. He sometimes lies down, and occasionally rolls over.
8. He rises upon his feet and walks slowly round and round the box; then crouches again, and appears as though he desired to lie down, but does not.
9. He stops when wandering round, and leans lightly with his body against the wall, with his chin upon the edge of the manger.

GOODWOOD RACES, THURSDAY, JULY 30.

THE CUP DAY.

A great trial of strength with the American, French and English horses imparted an additional attraction to the "Cup Day." Pryor and Prioress came to England with a vast reputation, while Florin and Monarque were not unknown to fame. The Americans regarded the success of one of their horses with no little confidence, and it must be confessed that, although Pryor and Prioress were defeated, they were not disgraced. The horse lathered considerably on being stripped, but he ran right up in front to the distance, where Prioress, too, looked so formidable that a shout of "What against the Americans?" was raised by many voices. It was reserved for France, however, to bear off the honors of the day, Monarque, who ran third for the Cup last year, winning it on the present occasion after one of the most exciting finishes ever witnessed. The English horses made no inglorious exhibition, and "performed" sufficiently well to sustain their high reputation. As our description of the race will show, the enconnter was marked by a casuality which might have been as lamentable as that which occurred last year for the Goodwood stakes. Gunboat, while leading, fell at the turn into the straight, and Arsenal, who was in his wake jumped upon him, and stumbled, Fordham, however, managed to keep his seat, Gemma de Vergy and Kestrel were not so fortunate, both coming heavily to the ground, but their riders escaped any serious injuries. David Hughes was carried into the stand, and the Duke of Richmond, with his usual kindness and urbanity, was instantly in attendance upon him. Hughes was only severely shaken; he was removed to the Chichester Infirmary, where he received prompt medi-

cal assistance. It is impossible now to tell what might have been the result of the race had no accident happened. The general opinion was that the American horses—which were ridden by native jockeys, in striped jackets and starred caps—might have figured still more prominently, had they been entrusted to men as experienced and accomplished in their profession as English jockeys. Indeed, in turf phraseology, Prioress looked "all over the winner" at the distance. The French people present were not a little gratified by the success of Monarque, and the prize which they will carry with them to France is a trophy worthy of possession.

The GOODWOOD CUP, value 300 sovs., the rest by subscription of 20 sovs., with 100 added. The second to receive 100 sovs., out of the stakes, and the third 50 sovs. Two miles and a half. 40 subs.

Count Frederick de Lagrange's Monarque, by the Baron, Sting, or the Emperor, 5 yrs, 8st 8lb ..... Ashmall 1
Mr. J. Merry's Riseber, 3 yrs, 7st 2lb..... .....Bray 2
Mr. Starkey's Fisherman, 4 yrs, 9st 11lb.....Wells 3
Mr. F. Robinson's Anton, 3 yrs, 7st 7lb.....Flatman 4

The following also ran:—Mary, Pryor, Kestrel, Melissa, Viscount, Prioress, Gemma de Vergy, Arsenal, Gunboat, and Florin.

Betting at Starting.—5 to 2 against Gemma de Vergy, 11 to 2 against Anton, 11 to 2 against Riseber, 9 to 1 against Arsenal, 14 to 1 against Fisherman, 15 to 1 against Monarque, 15 to 1 against Florin, 15 to 1 against Melissa, 20 to 1 against Gunboat, 14 to 1 against the American horses coupled.

THE RACE.—After the starter had paraded the horses in Indian file past the Grand Stand, he conducted them to the post, and endeavored to draw them up in line,—a task of some little difficulty, owing to the fractiousness of Prior, who caused several breakings away. When the flag was dropped Viscount rushed to the front, but on reaching the Grand Stand, Riseber, who was pulling hard, went up to him, Viscount, Monarque, Gunboat, Fisherman, and Melissa clustering well up, the American horses bringing up the rear. On turning out of the straight, however, half a dozen lengths, Florin, Gunboat, Monarque, Fisherman, Viscount, and Arsenal running in a body next. On rounding the turn towards the clump Prioress ran wide, and Gunboat was left in possession of the lead, which he carried on into the dip. On rising into sight Riseber and Prioress were seen in close company with Gunboat, followed by Melissa, Florin, Monarque, Fisherman, and Arsenal. They ran thus to the last turn, and on descending the hill by the half mile post, Gunboat slipped up and fell, and Arsenal jumped upon him. Fordham fortunately kept his seat, but Kestrel and Gemma de Vergy both came to the ground. The lamentable occurrence of last year immediately rushed upon the minds of the spectators, and the most painful interest was excited. All fears were dispelled as the jockeys were seen to scramble up apparently uninjured. After this accident Riseber was left with a slight lead, with Monarque at his quarters and Prioress next, with Pryor well up, the American horses going particularly strong and well. At the half distance Monarque went up to Riseber, and Prioress gave way to Fisherman. The race from that point was virtually reduced to a match between the first two, Monarque winning by a head, three lengths between the second and third, Anton, who met with a disappointment by the accident, mentioned above, was beaten about three lengths from Fisherman, Prioress was a bad fifth, Pryor and Melissa were sixth and seventh, the others were pulled up.

European Times.

THE AMERICAN

Veterinary Journal.

DEVOTED TO THE DIFFUSION OF VETERINARY KNOWLEDGE.

Edited by GEORGE H. DADD, Veterinary Surgeon.

Published by S. N. THOMPSON & Co., 97 Union Street.

PRICE, ONE DOLLAR PER ANNUM.

VOL. II. BOSTON, MASS., OCTOBER, 1857. NO. 10.

VENTILATION.

(*Continued from page* 260.)

(CONCLUSION.)

The following experiments have lately been made in view of showing the variations of temperature at different heights in an unventilated apartment. "In a room about twenty-one feet in height, thermometers were suspended at intervals of about two feet from the floor to the ceiling. The one on the floor indicated 65°; the one placed ten feet from the floor indicated 80°; the one near the ceiling, being nineteen feet from the floor, stood 94°, so that the difference in temperature between the first and last was 29°." With these facts before us, we would ask, What is the condition of our churches, lecture-rooms, school, and dwelling-houses, where the principles of ventilation are entirely disregarded? It is a notorious fact that not one meeting-house in a thousand is ventilated. They are shut up on the air-tight principle during the week, and are only opened for occasional services, and on the Sabbath. So soon as the services commence the doors are often shut; there is no necessity for closing the windows, for perhaps they have not been opened for a month.

The emanations from the bodies of perhaps a large congregation, and the exhalations from their lungs, some laboring under incipient tuberculous and scrofulous affections, render the atmosphere of the very worst description, fans, cologne, and smelling salts are in great demand, still occasional fainting fits will occur. Between meetings, unless the sexton be a hundred years in advance of the times, every opening is closed, and in the afternoon the same air-tight ceremonies

are observed; but now the atmosphere has become almost intolerable, and you will see the audience dropping off one after another, much against their inclinations, into a comfortable snooze.

So far as we are concerned, we would just as soon be caught robbing a hen-roost, as to be seen asleep in church on Sunday. Yet such a state of coma does once in a while come over people that they are compelled to yield to superior forces. People sometimes excuse themselves when caught napping, under the circumstances, by saying they have eaten too much dinner. Now if we are any judge of New England customs, it is not the practice to provide sumptuous entertainments for the Sabbath. There may be exceptions, but our opinion is that the air-tight building tends to make people's eyelids air-tight also. During the afternoon services, the effects of defficient ventilation are more marked. We perceive it in the expression of the features of every one present, either by the appearance of facial relaxation and paleness, or by hectic flush, and the usual evidences of mental and bodily lassitude. If some ministers of the gospel were half as anxious to preserve the lives of themselves and their congregations as they are to harass the latter into the belief of a theoretical theology, they would labor incessantly to show the need of *church* ventilation, for a legion host of them may attribute their miserable health to the above cause. Some persons, who have never given this subject a thought, may suppose that we place too high an estimate on the benefits to be derived from a thorough system of ventilation, therefore we direct their attention to the following paragraph. The experiment was made in an unventilated lecture-room 34 × 23, height nine feet.

"The lecture commenced at 9, P. M. The thermometer indicating 40°; at three-quarters past ten, thermometer has risen 15°. At the end of one hour and fifty minutes, the period occupied by the lecturer, the temperature of the atmosphere was 80°, and the audience consisted of only sixty-nine individuals." What man or woman can expect to enjoy health after breathing such a vile atmosphere?

Every one must have noticed that in an unventilated and crowded lecture-room the lights occasionally grow dim, as the saying is, and require incessant attention, showing conclusively that an impure and consequently a moist atmosphere is a bad radiator of light. This may be explained on the following principle: A pound of oil when consumed by means of the common wick decomposes thirteen cubit feet of oxygen, and produces nearly three pounds of carbonic acid gas; it eliminates also one pint and a quarter of aqueous fluid. This appears a large amount, but skeptics can estimate it on the known facts, that for every grain of hydrogen uniting with eight grains of oxygen, nine grains of water are produced.

Our readers are probably aware that water is composed of these two gases, and that the oil is composed of carbon, oxygen

and hydrogen. In the process of burning, a combination takes place between the oxygen and the atmosphere and the carbon of the oil, the result is, carbonic acid gas; the hydrogen uniting with the oxygen produces water, in the ratio alluded to; but in the consumption of a pound of gas, more than two and a half pounds of water are formed.

There appears, therefore, to be every facility in an unventilated building, for deteriorating its atmosphere, with very little prospect of rendering it fit for respiration, and it is remarkable that a subject of such importance to the welfare of mankind should escape their intelligences.

ON THE FORM OF HORSES.

The "*Farrier's Dictionary*" is credited with the following:—

HEAD.

"The head of a horse should be narrow, lean, and not too long; but the principal matter to be observed respecting it, is, that it be well united with the neck, so that the horse may be enabled to bring it into a good position, and the best position in which a horse can possibly hold his head is such an one as is perfectly perpendicular from the brow to the ground, so that were a plummet to be suspended from that part, it would just raze or touch the nose. Every horse that has too large a head is apt to bear too hard on the bridle, which not only tires the rider's hand very much, but exposes both to several disagreeable accidents, and besides, a large headed horse cannot appear to any advantage unless he has a very *long* and well-turned neck."

REMARKS.

The above paragraph looks very well on paper, but is a strange compound of truth and error, and as we happen at the present moment to be in the "critical mood," we offer the following brevities for the consideration of our readers:

"The head of a horse should be narrow, lean, and not too long." A *narrow*, *lean*, and *short* head, affixed to the body corporate of a powerful draught horse would appear as ridiculous as if any one were to carve a statue of Daniel Webster, representing his *vast* bodily proportions, and adorning the upper works with a cranium resembling the form of a pear, narrow, lean, and "chunky," "not too long." Therefore, the writer should have qualified his theory, and informed us what kind of a horse the above described head would be likely to adorn. If it be intended for the body of an animal of the nervous temperament, with dense tissues, spare muscles and diminutive statue, the theory may be correct; but reverse the order as above, and every one will perceive that the head and body are not

symmetrical, which is a matter of considerable importance in the *selection* and *purchase* of a horse.

The *position* of the head is next referred to. "*The best position in which a horse can possibly hold his head is such an one as is perfectly perpendicular*," &c.

The writer has here evidently fallen into a common error, which confounds a *faulty* position with a physiological one. A head describing the same perpendicular line as that of the fore extremities would look very funny; might set very well on the neck of a goose or pelican, or phœnix, but when the *horse* is concerned, that is another matter. The *best* position in which a horse can possibly carry his head is that which he *naturally* assumes, uninfluenced by *check* or other fetter, rein or martingale. The position indicated by the writer of the above paragraph as the "*best*," is acknowledged by all horsemen to be the most faulty, for horses when performing feats of speed are observed to *extend* the head in a horizontal line with that of the spinal column. A free extension of the head corresponding to the horizontal position of the neck and body enables the horse to breathe with freedom, whereas if the head be attached to the body after the perpendicular fashion, it is apt to obstruct *free* respiration by pressure on the larynx or first respiratory passage. We are well aware that some horsemen consider this faulty position to be the best, hence they endeavor by means of the check-rein, and other appliances to make all their horses carry their heads perpendicular, but these men must have observed how relieved a horse appears to be when his head is liberated from this uncomfortable position, which, under the circumstances, cannot be the *best*. If a *horse with a large head bears too hard on the bridle and tires the rider's hand*, then the rider or owner is at fault; such a horse should never have been selected for the saddle, for to ride with safety we require a *high* head and neck. A horse having these points would not be likely to tire the *bridle hand*.

The writer of the preceding quoted paragraph concludes thus, "A large-headed horse cannot appear to any advantage unless he has a very long and well-turned neck." This is more a matter of taste than of utility. Persons who purchase horses merely for their beauty are apt to make a sorry bargain. Others who select and pay less attention to the beautiful points, and more to enduring and physical qualities, are not so apt to get deceived. Many of the Pennsylvania horses used here in the trucking business have large heads and short necks, yet we hear no complaint in consequence. In fact, they are the most useful and enduring horses in the country.

Then again, a *large head* and very *long* and *well-turned* neck will not appear to any advantage unless affixed to a corresponding size and conformation of body and limbs. However, a horse may make up in utility, for all he lacks of beauty.

AN EPITOME OF DR. JOHN FORBES' NATURE AND ART IN THE CURE OF DISEASE.

[Written for the American Veterinary Journal.]

BY PROF. ARTHUR S. COPEMAN, UTICA, N. Y.

"NATURE is ever busy by the silent operation of her own forces, endeavoring to cure disease. Her medicines are air, warmth, food, water, exercise and sleep. Their use is directed by *instinct;* and that man is most worthy the name of physician who most reveres its unerring laws."— *Dr. Dixon.*

"Whenever many remedies are recommended for one disease, there is presumptive evidence that none of them are of much value. If any one could be relied upon, the others would soon cease to be used and fall into disrepute. So it is with the medical theories upon which the Medical Art is founded. If the symptoms observed in any disease are explained on many different hypotheses, we have presumptive evidence that its true nature is not thoroughly understood."

Great as is the progress made in anatomy and physiology, in physical diagnosis and pathological anatomy, in the last half century, it is a very remarkable fact that we have, as yet, gained very little through these colateral sciences for the rational *treatment* of disease which always must be the main end of our labors. We are convinced, that the more the *natural* progress of disease is studied — the more we discriminate between the results of the injurious agents by which it has been produced, and the operations by which Nature endeavors to remedy or oppose these, the more shall we find the benefit — nay, the absolute necessity of working in accordance with Nature's dictates — and of giving to our remedies such a direction as may aid and not antagonise her salutary processes. Now, the great question discussed by Dr. Forbes is an all-important one, and he has made a bold stroke at a monstrous error. With due respect to *authorities* on Medical Art, we feel it our duty to ask whether we are to build up its rules upon the supposed results of the action of certain remedies in particular cases of disease — the natural course of that disease, unaffected by interference, being comparatively unknown — or whether we should, in the first place, study the means by which Nature works out the case, in a large proportion of cases, that tends spontaneously to a favorable termination, and should so direct our remedies that they may operate in accordance with her indications, instead of (as has been too often the case) setting up a new action of our own which may be completely opposed to her plans? Not insignificant is the profit which has already accrued from the labors of those who have clearly recognized the correctness of this view; and the conviction is more and more gaining power, that the only hope for the continued and lasting progress

of medicine lies in the patient and energetic pursuit of the same *method* to which the so called exact sciences of nature owe their flourishing state. We mean the way of sober, unprejudiced observation and strictly logical induction. There is perhaps no subject upon which the *public* has more frequently to judge, and upon which it is less generally informed and consequently judges more incorrectly, than that of the Medical Art. One of the objects contemplated by Dr. Forbes' work, is, to expose the causes of the erroneous and exaggerated notions which are held by both lay and medical men with regard to the nature of diseases and the powers which medicine can exert for their alleviation.

We shall now endeavor to lay before our readers, as briefly as possible, a few of the leading facts contained in this work, leaving the greater part of our author's statements and reasoning to be obtained by a perusal of the book itself, which will amply repay them for their trouble.

"The most fruitful source," says Dr. Forbes, "of false views, both in pathology and practice, prevalent in the medical profession, originate in the ignorance of the natural laws governing diseases; for such has been the want of trust in Nature and the over trust in Art, prevalent among medical men, that the field of natural observation has been, to a great extent, hidden from them — hidden, either actually from their eyes, or virtually from their apprehension. The extreme ignorance of the public — aye, even the literary and scientific classes — is a fact admitted by all who are capable of judging on the subject. Hence, the falsest and most absurd notions are entertained respecting the morbid conditions of the animal economy, and the means capable of removing them."

The belief generally entertained is, that in the majority of the cases of disease in which the patient is restored to health, the principal agent in this restoration is the artificial treatment — that is, the drugs, &c., prescribed by the attendant. In acute diseases, the abatement of the severe symptoms which often follow the administration of remedies, is invariably attributed to the active measures usually had recourse to in such cases — a conclusion which, however false, can hardly be wondered at under the circumstances. When the observer sees bleeding, blistering, purging, and all the heroic arms of Physic brought into action against the disease, and with the avowed object of curing it — and when the disease is seen to abate or disappear within a short period after their employment, the inference seems inevitable, that the *artificial* treatment was the exclusive agent in effecting the cure. In chronic diseases, however, the demonstration of Art's powers are not so striking; but still, in the prevailing ignorance of there being any other agency to explain it, the result is as confidently

set down to the treatment as in the other case. So general is this belief, and the confidence in its validity so strong, that it is rarely shaken even by the most untoward events — and even when the disease proves fatal it is never doubted that life has been prolonged and suffering mitigated; the disastrous result being set down as the consequence of a bad constitution or of an intractable disease. In cases of this kind the Practitioner is often blamed for his want of skill; for it is only in rare cases that the power of his art is inculpated. It is this belief in the great powers of his art, that seems in the judgment of his accusers to imply his condemnation; he failed not for want of available power, but for want of available knowledge to apply that power.

That an ordinary observer should entertain erroneous notions of the powers of Art as well as the power of Nature, in the cure of diseases, cannot excite much surprise. It will not, however, appear so obvious at first sight, how medical men should fall into the same mistake. As their entire studies should be directed to the natural course of diseases; yet, when we consider the whole case, this will not appear surprising. Since the Medical Art assumed its present formal, bold and complicated character, it is only in rare cases that disease is left to Nature. On the contrary, the strongest powers of Art are usually employed for the very purpose of setting aside, or counteracting, or modifying the powers of Nature. The heroic arms of Physic are purposely invoked to disturb and overwhelm the normal order of the natural processes. In such cases it is impossible to discriminate what is due to Art or to Nature in the cure of diseases; and there can be no doubt that the fundamental obstacle to the student's attainment of a true appreciation of the powers of Art, arises from the general ignorance of the NATURAL HISTORY OF DISEASES. In our medical schools this subject has been too much neglected.

"The natural curative power," says Dr. Forbes, "is not one that operates merely occasionally, or feebly; but one that is always present, ever acting, and possessed of powers to cure the majority of diseases without any assistance. To overlook this power in estimating the value of Art in curing diseases, would be to overlook a most important agent. Such an oversight would be equivalent to that of a rower in a boat who, in estimating the cause of progress in going down stream, should make no allowance for the motive force of the current, but attribute the whole of his advance to his own exertions at the oars. This oversight is constantly committed by both lay and medical men." Among the numerous misconceptions respecting the natural history of diseases, there is none greater than that which regards the termination of disease. In the cases of

slight diseases of all kinds, most persons admit that a certain proportion may terminate in health when left entirely to Nature. In the case of severe diseases, however, the predominant opinion is, that if left to Nature the great majority of cases would prove fatal, the recoveries being regarded as almost entirely the consequence of the interference of Art. That such is the opinion of professional men is not only to be inferred from the extreme reluctance universally evinced to trust the event of such cases to Nature, but from the recorded opinions of what are called practical authorities. And yet the facts of the case are entirely at variance with such statements. Even in the most fatal of acute diseases — cholera, yellow fever, &c. — we find a considerable proportion of the sick recover under every variety of treatment. In ordinary inflammation, as of the lungs, liver, kidneys, peritoneum, &c., whether left entirely to Nature, or treated by means incapable of controlling them in any way, we find a large proportion of cases terminating in recovery, more or less perfect.

In what are called the "specific fevers" it is now universally admitted to be impossible to check their course; and all our most experienced and most enlightened practitioners agree, that the terminations, whether favorable or unfavorable, are only very slightly modifiable by treatment; and yet we find a large proportion of such diseases always terminate in restoration to health. It would be a most important piece of information, if we could obtain a knowledge of the proportional mortality of diseases generally, when left to their natural course; — this is the sole kind of knowledge which could enable the physician to speak with certainty as to the Medical Art having any power to cure diseases that would otherwise prove fatal, or of the amount of his power, if it exists. Without this knowledge, it is impossible for medical practitioners to judge of the value of particular methods of treatment.

Considered as an abstract fact, nobody ever for a moment doubted that Nature possesses the power of curing diseases. Every one must have had experience of the fact. The sting of a wasp, the prick of a thorn, the cut of a knife, &c., are examples of local disease which every one must have seen removed without the aid of Art. A catarrh, headache, diarrhœa, are also instances of disease which all have known to disappear, or be cured, under similar circumstances. The most enthusiastic advocate for the power and dignity of the Medical Art will hardly go so far as to assert, that but for it all diseases must terminate in death. To maintain such a proposition would not only be in opposition to the plainest facts, but would be at variance with all that we know of the essential conservatism of organic existence throughout

nature. It would be strange indeed, if we were to believe the consummation in death to be the work of Nature, and yet refuse her the privilege of restoring health.

Dr. Forbes again very truly observes: — "Although no one doubts the power of Nature to cure many slight and even some severe diseases, there yet exists in the minds of professional men, and still more strongly in the minds of the public, a most unjust appreciation of the extent of this power." As this is a question of the highest importance to both parties, that at least an approximative estimate of it be obtained, we propose making the attempt. Our evidence shall be taken from those fields which are calculated to supply it in the greatest purity, such as present the least possible amount of interference of Art. We shall commence our inquiry in the great field presented by the pathology of the inferior animals.

We every day see the most extensive wounds in the dog, the hog, the sheep, and the ox, repaired by the natural process. Here we have no room for equivocal reasoning. During epidemic diseases among horses and cattle — either from want of knowledge or from special circumstances — the animals often receive no medical treatment whatever. In the country the great majority of diseases are left almost entirely to Nature, or to the care of persons utterly ignorant of rational art — the remedies almost invariably consisting of the indigenous plants of the particular locality, the great majority of them we know to have no power or virtue in mitigating or curing diseases; — for example, the infusions of pumpkin and tansey, elecampane, marshmallow, dandelion, &c. Yet what do we witness as the result of such treatment? Sometimes, no doubt, protracted and lingering debility which might have been shortened by the rational interference of Art, and sometimes death, which might have been prevented by treatment of a more positive kind, but also many recoveries from even the severest diseases.

In another class of cases of the kind in which some simple treatment has been employed, a similar inference is equally warranted, on the ground that the treatment was either quite nugatory, or was injurious. Here we admit there is some opening left for the arguments of those who maintain, at all hazards, Art's potency and Nature's impotency in the cure of diseases, human and beastial. Such judges may indeed have warrant for their doubt, or even for their positive verdict, in the instances where the doctor has attacked the diseases of his four-footed patients with blood-letting, purging, blistering, and all the other weapons of veterinary heroism; but we hope they will resign to us and Nature, without much struggle, some of the cases at least in

which no more energetic practice has been had recourse to than anointing the creature's nose with tar, greasing the nail that punctured the foot, tying some red thread on the tail, or even making a slit in the ear with a rusty pair of scissors. Our experience would enable us to add a volume of evidence on this point, clearly exhibiting Nature's autocracy In thus adducing evidence from the inferior amimals in favor of *self cure* in man, we may be told that we have no right to assume, that what takes place in animals will take place in man. The analogy, however, is so strong, and the inference so consonant with known truths, that no reasonable man will hesitate to accept the results derived from this source as in the highest degree corroborative of the belief that the same power exists in the human subject. In many respects, the field of disease in animals offer far better opportunities of studying the natural history of diseases than the same field in man.

We beg here to call the attention of our veterinary brethren to this subject. Come forward and publish to the world an honest and frank statement of your experience.

The necessary origin of the Medical Art is well exemplified by the medical history of all savage nations — no people having yet been discovered among whom there was not the semblance of such an art, and only in a few where there are not special professors practising it. In the early life of most nations, religion and physic have gone together — both being equally practised by the priests, or cunning men. Next to the spiritual doctors come the old women, who, even now, have no slight occupation in this way among the high and low in all countries.

Among the natives of the Tonga Islands no internal remedies are used, their whole medical treatment consisting of invocations and sacrifices to their deities. Here, at least, we may safely take the results as Nature's, whatever they may be; and we are assured by Dr. Mariner, that, if often unfavorable, they were also not seldom to the contrary.

The Africans believe that witchcraft plays the most extensive part, both in causing and in curing diseases. Charms are also much in vogue. One popular form of these, mentioned and prescribed by Mungo Park, consists in writing the charm on a board and drinking the matter of the words when it has been carefully washed off — a mode of practice very analogous to, and we doubt not as efficacious, as that of the Homœpathists who, in point of fact, if they adhere rigidly to the original Hahnemannian dose, do literally prescribe words and not things.

Leaving the domain of legitimate medicine we find an ample field for gathering evidence of a similar kind in the proceedings

of the numerous race of impostors and quacks, who, it is well known, expend millions of dollars every year in advertising their nostrums. That a very inconsiderable number of persons recover from their diseases under every form of such medication is a fact that admits of no question; and the fact is to be found alike under heroic as under expectant quackery — under the drastic discipline of Morrison or Moffat, as under the gentle rule of the life-promising Parr with Dr. Townsend and his Sarsaparilla — or Holloway's Pills and all-healing Ointment, as with the great Solomon and his Balm of Gilead. It is no use to ignore such results. The *facts* are supported by the *testimony* of millions of witnesses.

No one that has, with whatever object, turned over the pages of the huge folios and quartos of our learned predecessors of the seventeenth, eighteenth, and part of the ninteenth centuries, but must have had his attention arrested by numberless cases bearing on this subject. It is true that the cases recorded are too generally treated to furnish pure evidence; but to compensate for this defect, they often supply evidence of a still stronger kind by showing not simply the powers of Nature in overcoming natural disease, but to overcome this and the artificial disease superadded by the energetic ignorance of the practitioner. A vast amount of evidence derived from this source — though for obvious reasons not formally recorded — exists in medical tradition, and in the unwritten testimony of medical men. When old Dr. Warren, in answer to the question, "what will cure acute rheumatism," replied, "six weeks," he merely expressed what his long experience had led him to know of the relative power of Nature and Art in this disease. Another celebrated professor on being told that a new sect, the Homœopathists, had sprung up which cured diseases by infinitesimal doses of medicine, replied, that he himself had long been in the habit of doing more than this, viz.: curing diseases by none.

But of all the examples of the power of Nature in curing diseases, supplied by the records of medicine, or by its actual practice, there is none which, in point of extent or in force of evidence, can compare with that furnished to us by Homœopathy. This is not the place for inquiring into the truth or falsehood of this system of medicine, except simply to show that, though as ingenious and as plausible as some other theories that have prevailed in medicine, it is, like most of them, utterly baseless and unphilosophical. It can be demonstrated that the treatment legitimately derived from it of prescribing infinitesimal doses of drugs, is utterly incapable of modifying the animal organism in any way. Hence we have a right to assume that all the results, exhibited in the practice of the Homœopathists, are the product of Nature's operations alone. The field thus thrown open to the

student of Nature's operations in disease, is immense. What is the character of the results obtained under this system of *imaginary* medication? When fairly weighed, it must be admitted that these results exhibit, if not quite as large a proportion of cures as ordinary medicine, still so large a proportion as to demonstrate at once the feebleness of what we regard as the best form of Art, and the great strength of Nature in the same office.

It must not be supposed from this statement that we are of opinion that Homœopathy is as capable of curing diseases and saving life as the most rational practice of the other school. Every one must have seen or heard of the striking evils resulting from this "do nothing" system. We merely maintain that, on the common and obvious evidence usually admitted in such cases, a sufficiently large number of cases get well under this system of treatment, to prevent the existence of any striking contrast in the public eye between its practical effects and those of the ordinary system. We only wish to establish the fact, that a large proportion of the cases treated by Homœopathists recover — that is, according to our views, are cured by the powers of Nature alone.

It is with feelings of the deepest regret that we make any admission favorable to a system so utterly false as Homœopathy, and in derogation of one which is both true and rational; but the faults of our ordinary system of medicine lie much less in its essential character than in the erroneous modes in which it is administered, through the false views entertained of its true nature and powers. Probably the most important results supplied by the preceding survey, is this, that the Medical Art, in its actual working condition, both in the present and past time, is not exactly what it is generally believed to be by its professors, the younger members, and by the lay public. It turns out to be not only different in its nature, objects and mode of action, but still more different in the amount of its power to mitigate and remove diseases. It is nevertheless most true, that however comparatively impotent to save life that would have otherwise been lost, the Medical Art, when it condescends to leave its imaginary heights of power and takes up its true position as a helper in the infirmities of either man or beast, proves itself to be not simply useful, but most valuable in almost every case of disease, slight or severe, curable or incurable. When its appliances are directed by true knowledge of what Nature and Art respectively can and cannot do, they can be made beneficially available in the most unpromising instances — though it may fall short of the excellence which the ignorant have attributed to it, and which the benevolent desire that it should possess.

If disappointment and discouragement should arise from any

thing that is truly delivered in these pages, the blame must lie with those who, in the first place, gave the Medical Art in the minds of men a degree of elevation which it did not merit; and with those, in the second place, who accepted this as a fact, without due inquiry into the matter itself. According to the lowest estimate that can be justly formed of the Art, it must still hold its pre-eminence as one of the greatest boons that human intellect has ever elaborated, for the benefit of man's estate. With all its fe bleness and all its uncertainties, it possesses, and ever must possess, a sufficiency of solid truth and solid power to make it worthy the study and pursuit of the noblest intellects and the tenderest hearts.

One word in conclusion. It was my intention to have written an *original communication*, but as my labor advanced, I gradually found myself encroaching upon ground most ably occupied by Dr. Forbes, whose work I have just read. I at length felt it my duty to present the whole as a *rèsumè* of his most interesting work. I have endeavored by a few rapid sketches to define his position, adding a large admixture of new illustration and fact.

"A RICH JOKE."

CONTRIBUTED BY R. JENNINGS, V. S., CLEVELAND, OHIO,

The richest joke of the season was perpetrated a few days since at the stable of W. K. Adams. I had at this stable a rheumatic patient, upon whose haunch there was an abraded surface. One of those very smart men who can take the rag off the bush happened to see the elephant, and remarked that I was not treating him right, pointing to the abraded surface. He remarked that was not the seat of lameness. Mr. A. asked for what he would treat him? His answer was, "for spavin." Mr. A. asked "if he could cure ring-bone?" "To be sure I can," said he, "and make the foot as smooth as it ever was." Mr. A. here showed the gentleman the tongue of a horse, that was preserved in spirits, that had been bitten off by another horse, and asked, "What do you think of that for a ring-bone?" This smart man said, "It is a large one, but the person who removed it did not take it all out clean, and it will grow again; but," said he, "I have taken out larger ones than that." That man has since left town. His name is Spooner — a good name to be used by a quack. These are the kind of men who cure spavin and ring-bone.

THE GREAT EASTERN.

WHOEVER wants to feed the natural passion for size in the primitive way, and to see a true giant in its own line, must visit the bank of the Thames at Millwall. But before he goes we recommend him, unless he is very well versed in the book of Genesis, to turn to the 6th chapter, and refresh his memory as to the dimensions of Noah's ark and the "fashion" of its making; "The length of the ark shall be 300 cubits." So, reckoning the cubits at a foot and a half, we have a ship 450 feet long, 75 feet broad, and 45 feet high.

While the visitor is collecting data as to ships, sacred and profane, he may turn to "Marlborough" in the Navy list, and there he will see that the largest line of battle ship in the British navy is exactly of 4000 tons burden. And now let him get on board a Greenwich steamer and be steamed through the picturesque Pool to Millwall. Just opposite Deptford he will be aware of something pre-Adamite wallowing in the mud of the Isle of Dogs—a stranded saurian ship, to which even Noah's ark must yield precedence, and to which all the Marlboroughs, and Wellingtons, and Merrimacs, and Niagaras in the world are mere cockboats. An iron hull of the burden of 23,000 tons, nearly 700 feet long, and 60 high, will meet his eyes—the hull of Mr. Scott Russell's Eastern steamship. We must give a few more figures, for every figure is a monster, and worth looking at separately. One is a figure of 30,000—the number of the iron plates which compose the enormous erection, each weighing the third of a ton, and each fastened by 100 rivets. The ship will accommodate 4000 passengers, 800 of whom are first class. On an emergency she could carry 10,000 troops. She will contain 10 boilers, and 100 furnaces. The cylinder of every engine will be 6 feet in diameter, and the diameter of the paddle wheels will be 56 feet, or considerably larger than the circus at Astley's. The principal suite of saloons will be 400 feet in length, and a promenade round the deck will afford a walk of more than a quarter of a mile. The monster ship will combine steam power in both shapes, screw and paddle, with sailing power. She will carry 11,600 tons of coal —she will be lighted hy gas on board, and the electric light will flicker like St. Elmo's fire at night from the mast-head. She will spread 6508 yards of canvas, and her speed is computed at 15 knots, or 18 miles an hour—a rate which will perform the voyage to India by the Cape, and to Australia, in little more than a month. Who would not wish to be captain of this gallant ship?—*London Times*

A VERY GOOD PLAN OF SHOEING HORSES.

H. Hallen V. S., of the Inniskelling Dragoons, having for upwards of thirty years taken great interest in the subject of shoeing horses offers the following remarks which appear in the "Veterinarian":—

"*To prepare the fore foot for a shoe*, a level ground surface is made by a drawing knife and rasp, taking off the usual quantity of horn which would be worn away at the ground surface of the crust. At the toe there is a concavity made for the reception of the foot surface of the shoe at this part, caused by the turning up of the toe of the shoe. The heels are not what are generally termed *opened* by the drawing knife, neither is there a particle of the outside of the crust, sole, or frog removed.

"*The form of the shoe.*—This is made flat on the foot surface, and concave on the ground surface throughout, excepting at the toe; which part is turned up so as to have the form (inferiorly) of a shoe worn some time. No clip at the toe or any part of the shoe. The nail holes are countersunk: five are used, three on the outside and two on the inside, placed so as to retain the shoe securely on the foot, and, at the same time, to interfere as little as possible with the elasticity of the horn.

"*Fitting the shoe to the foot.*—Care is requisite to have an equal bearing throughout on the ground surface of the crust, and the shoe not to project in the slightest degree (outwards) in any part; the heels of the shoe to terminate evenly with the foot.

"What I have advanced will be sufficient, I trust, to invite some remarks from others on the subject; and, if it is desired, I shall only be too happy to give a l the information in my power as to the effects I have witnessed upon this plan of shoeing."

At a meeting lately of the "*Boston Society of Natural History*," Dr John Bacon exhibited some Calculi, six or seven hundred in number, taken from the bladder of an ox. They were amorphous, presenting no crystalline formation, and containing only a small quantity of organic matter. This is one of the rarest forms of urinary calculi.

STOMACH STAGGERS IN HORSES.—This malady can generally be traced to errors in diet and general management. Too much carbon-food, and too little exercise comprehends in many cases the history of staggers.

WHO WOULD NOT BE A VETERINARY SURGEON?

In the first place it is an occupation that "*pays.*" This is an announcement that will be pleasing to those, who before engaging in any new enterprise shrewdly enquire—"Will it pay?" "It cannot help but pay." There is scarcely any competition, except in a few of our large cities, and even in them, the competition is nothing compared to that which prevails in almost every other branch of business.

If a man wishes to distinguish himself as a practitioner, teacher, author, or philanthropist, the veterinary profession offers him a splendid, unexplored and fruitful field, for both honor and profit.

There never was a time when the services of certified veterinary surgeons were in so great demand as at the present; the very best stock of Europe are daily becoming the property of the enterprising husbandmen of the western world, and those who have been so liberal in procuring at such enormous prices, superior animals, are expected to be no less liberal in the selection of superior talent for the treatment of the various diseases of climatic, and incidental origin to which these animals are subject, so that a veterinary surgeon stands a better chance of getting a living, and securing the respect and confidence of the community, than those who have not had the benefit of a collegiate course of training.

Hundreds and thousands of young men in the United States are seeking for employment, and are undecided what to do for a living. Let them enlist under our banner, and if they possess the requisites for instruction, and their teachers have the ability to impart the same, they had better try the experiment at once. We are in possession of documentary evidence going to show that veterinary surgeons can secure a handsome competency, in either of the following locations: Chicago, Illinois; Detroit, Michigan; Louisville, Kentucky; Portland, Maine; New York City; Philadelphia, Pennsylvania; Milwaukie, Wisconsin; Hartford, Connecticut; Springfield, Mass. In fact, there is no city in the Union, which cannot furnish employment for at least half a dozen qualified veterinary surgeons over and above the number now located. The people in some of the above named cities cannot now boast of the presence of a single *qualified* surgeon, and no doubt they would be glad to patronize an individual having the necessary qualifications. Therefore we again propound the question—Who would not be a veterinary surgeon? "*Don't all* speak at once."

REMARKS

ON THE PUBLICATION OF RECIPES, NAVICULARTHRITIS, SWEENEY, &c., —VETERINARY JURISPRUDENCE.

FRIEND DADD:—I have perused with much interest the remarks of Professors Wood, Copeman, and yourself, published in the August number of the Veterinary Journal, and willingly endorse the sentiments of each, and at the same time offer a few remarks on the same subject myself. The too common practice of our daily or weekly papers of publishing recipes, cannot but do harm, however good they may be in cases for which they are recommended. The reasons are obvious. The great difficulty may be the impossibility of the untutored mind to distinguish diseases, continually leading them into error; yet we frequently find such men know more, in their own estimation, than the regular veterinary practitioner. Scarcely are we called upon to treat a diseased animal, but we find ready tongues to inform us what ails the horse, and what we shall do to relieve him. This may be attributed to their possession of almanac and newspaper recipes. The diseases known to these men are all told in the following list, viz., the bots, the hooks, moon-blindness, wolf-teeth, sweeney, lampas, yellow-water, founder, staggers, horn-ail, or hollow-horn, or some such nonsense. Many men, too, practising as farriers, know no others, and yet they are encouraged to continue their work of destruction. Why is this? Is it a false idea of economy to save a paltry dollar that men will run the risk of having their animals injured, or perhaps destroyed? Who can answer? The public will submit to any kind of treatment for horses or cattle, however barbarous or cruel it may be. As an evidence of the fact, I give below several cases, showing as well, the scientific qualifications of the practitioners.

On Saturday, August 1st, a horse was brought to my infirmary, laboring under an attack of navicularthritis. This horse had been treated for sweeney; an incision had been made on either side of the withers, into which a quill was inserted, and by means of blowing and rubbing, the skin was separated as far down as the humerus; taking a transverse direction from above downwards, and forwards, into this opening, a fluid had been injected. What it was is known only to the operator. An immense sinus was the result, which I opened at the bottom and injected a solution of sulph. zinc, and the horse is now doing well. The operator on this horse probably became alarmed at what he had done, as he has not been seen in these parts since.

During the summer of 1855, while on a visit to Wilkesbarre, Pa., I happened to be passing a stable on the canal, and seeing a man operating on the shoulder of a horse, my curiosity was excited and I dropped in. An incision was made about three inches in length,

the skin dissected upon either side, and a new twenty-five cent piece inserted. I ventured to ask what ailed the horse, and was informed that he was sweenied.

These men frequently are called upon to testify, in cases of dispute. The result is, that many cases lost, with their assistance, might have been gained without them. Some three or four years ago a farrier, practising in the city of Philadelphia, was called as a witness. When asked if he was a veterinary surgeon became quite indignant, and pertly answered, "No, but I am a horse doctor, and know more'n all the veterinary surgeons put together."

Another: A horse belonging to the Frankfort Print Works, Philadelphia, died from some supposed urinary disease. A farrier in the neighborhood, who had been treating him, was called to make an examination. After searching in vain to find the bladder, he declared that death was caused in consequence of the bladder melting." I was informed by an eye-witness, that the pelvic cavity remained undisturbed. Another had a horse opened that died under his treatment. As soon as the abdominal viscera was fully in view, pointing to the liver he requested the knacker to "cut a slit in that lung." He, the knacker, thinking it a pretty good joke, quickly cut into the liver, whereupon our friend pronounced it a new disease, and left, much gratified, no doubt, with his investigation. Each of these cases can be well authenticated.

A case was reported some time since for *Porter's Spirit of the Times*, which I give *verbatim*, being decidedly "rich, rare, and racy."

VETERINARY JURISPRUDENCE.

First Judicial District Court, Wednesday, March 19th.

Before Judge Green.

This was an action brought by Charles C. Grice, a veterinary surgeon, against James Johnston, to recover $24,50 for medicines and medical services in attending the defendant's horse while sick with the distemper that has been so prevalent among horses, and also for feed and stabling furnished. The defense sets up that the horse became lame in plaintiff's stable, and sets off $100 damages. The proceedings in this case are reported below by a correspondent, and will be read with much interest, not only by veterinary surgeons, but also by every person interested in horse flesh.

The plantiff proved the services, and that the defendant admitted that the bill was all right. The defense introduced two witnesses, who testified that at the time the horse was taken to plaintiff's stable he was sick with the distemper, but was not lame; but when he was brought from plaintiff's stable he was very lame, and a few days afterwards he was taken to Dr. John Williams' stable to be cured.

Dr. John Williams testified that he was a horse-doctor; that the horse was brought to his stable very lame in the off fore leg, in the

fetlock, and the shoulder; the shoulder was not quite out of joint. Remained from November 12th to December 6th, 1855.

Q.—What was the cause of his lameness?

A.—I can't tell.

Q.—What was your bill? (Objected to; taken subject to objection.)

A.—Thirty dollars. He was cured by me; he was very lame when he came.

Cross-examined by plaintiff's counsel.—Can't tell the cause of the lameness; never knew the distemper to terminate in lameness; have attended fifty or sixty cases.

Q.—Can you tell me, doctor, how many teeth a horse has? (Objected to; objection overruled, and question allowed, on the ground that the counsel has a right to test the scientific knowledge of the witness as a veterinary surgeon.)

A.—I forget. I can't tell.

Q.—How many incissors or nippers has the horse?

A.—I don't know.

Q.—How many molar teeth has the horse?

A.—I don't know. I don't know as I ever knew.

Q.—Can you tell the number of canine teeth, or tusks, a horse has?

A.—I forget now.

Q.—Doctor, can you tell what bone of the horse this is? (exhibiting the femer or thigh-bone.)

A.—I don't know—I forget.

Q.—Can you tell me what bone this is? (exhibiting the humerus or upper bone of the arm.)

A.—I don't know—I forget.

Q.—Did you ever know?

A.—I can't say I ever did—I forget.

Q.—Doctor, can you tell me where the cannon bone is located in the horse?

A.—I forget—I don't know.

Q.—Can you tell me the number of bones the hock consists of?

A.—I don't know—I dont recollect.

Q.—Can you tell me the number of bones the pastern of the horse's foot consists of?

A.—I don't know—I can't say.

Q.—Did you ever, or do you now, know anything of the anatomy of the horse?

A.—I have forgotten it.

Q.—Doctor, can you tell me where the bars are located in the horse, and their use?

A.—I forget now.

Q.—Where are the sensible laminæ located ?

A.—I forget.

(On an intimation from the Court that the scientific knowledge of the witness had been sufficiently tested, the counsel for the plaintiff ceased to press the examination further on that point.)

Q.—Do you know Dr. Grice ?

A.—Yes, sir ; I have known him twenty years—ever since he first came to this country.

Direct examination resumed.—This horse was worth two dollars per day to the defendant. (Objected to, taken subject to objection.)

Plaintiff calls William Lockhart.—Am a veterinary surgeon, a member of the Veterinary College ; am familiar with the distemper going round among horses ; it ends variably, sometimes as an acute founder ; may shift into the feet, sometimes one or both ; sometimes it settles in the joints and makes the horse very lame ; I have had cases which terminated that way—such as this case here spoken of ; rest is all that can be done for them ; this lameness appears generally at the period of convalescence, and when the distemper itself has disappeared.

Cross-examined.—I have had cases of lameness lasting two or three months ; generally affects the joints, like rheumatism ; have seen a great many so affected in my own practice ; had twenty ; have half-a-dozen now ; they are very deceptive ; in s me cases the lameness is in one place, sometimes in another ; from the evidence, have no doubt that the lameness here spoken of was the sequence of this distemper ; it would not be apt to affect the body ; the whole muscular tissue of one side may be affected.

G. J. Appleton, in plaintiff's employ, corroborated the last witness. Have seen cases similar to those described by Dr. Lockhart ; the lameness of defendant's horse was the sequence of the distemper with which he had been affected.

The case here closed. Judgment for the plaintiff for the amount claimed. G. V. Reynolds for the plaintiff, Mr. Chatfield for the defendant."

Will the public be humbugged by such men any longer ? I venture to say they will, and Dr. Williams with the rest, prosper as before. Many of these men obtain all their knowledge from such works as " *The Complete Farrier.*" As a specimen of these works, *Knowlson's* contains the following : " Poll evil has been cured by the following mixture : Take finely pulverized flint glass three spoonfulls, put into urine, one pint in a bottle, and bury it in the ground for three or four days ; after which, take one spoonful or more of the mixture, well shaken up, and put that much into ach ear, once a day, for three, four or five days." Others recommend " raw meat," or " molasses and milk," in cases of supposed bots

In fact, I could fill up number after number of the Journal with just such recipes. In reporting cases of paraplegia, or paralysis, I wish to suggest to your correspondents the propriety, need, I say the necessity, of stating whether or no the animal had a long, switch, or bob tail, color, and age. My object in making the suggestion is to ascertain, if possible, what influence, if any, the docking of horses has on these diseases, more particularly the former. Are not docked horses more subject to nervous twitchings than other horses? At some future time I will give my opinion on this subject. In the meantime, I should like to hear from others of the profession.

Yours truly,

R. JENNINGS, V. S.

CASE OF RUPTURED STOMACH OF THE HORSE.

Reported by Prof. Charles M. Wood.

MR. EDITOR:—April 17th, 1857, at three o'clock, P.M., my attention was called to a horse belonging to Messrs. C. & F., wood and coal dealers in this city. On my arrival at the stable I found my subject, (a bay horse, aged —,) rolling and tumbling, and evidently in great pain. On enquiry, I was told that the horse was taken suddenly ill after eating his noon meal. Upon examination, the following symptoms were presented: Pulse frequent, but feeble; respiration much accelerated; tremor of the fore-extremities; great uneasiness, frequently lying down, and quickly rising again, occasionally rolling on his back, or sitting on his haunches; his mouth palid, his tongue hanging pendulous from one side, and the whole body bedewed with cold respiration. I prescribed anodyne medicines, and injections per rectum, and had the body well clothed.

Four o'clock, P. M., my patient is now walking from one part of the stable to the other, seemingly delirious, frequently retching as if attempting to vomit. The symptoms had so rapidly and painfully increased that I inferred a rupture of the stomach, although no ejection of its contents had been observed. Having no hope of the recovery of the animal, I gave no medicine, but offered him some water, of which he drank moderately, and which was immediately followed by severe spasms. He throwed himself upon the floor of the stable, and rolled and tumbled frantically for a few minutes, when he would rise and stand for a short time quite comatose.

At seven, P. M. I again called to see my patient. All the symptoms had increased in frequency and violence. At the urgent request of my employers, I repeated the medicine, which was imme-

diately ejected, and followed by painful sighing and obstructed respiration, which continued for a few minutes when he fell heavily upon the floor and died instantly, at about half-past seven o'clock, four hours and a half after my first visit.

I proposed making an autopsy on the following morning, my employers readily agreeing to accompany me to the knacker's yard. Accordingly the body was removed early for that purpose.

Post-mortem examination, thirteen hours after death. On opening the abdominal cavity, a portion of the contents of the stomach were seen strewed among the viscera, which proceeded from a rupture about five inches in length, in the greater curvature of the stomach, and through the villous portion. The mucous coat was highly injected, but exhibited no appearance of long standing disease in the organ. The intestines, large and small, bore no marks of inflammation, although a slight blush pervaded their whole surface; but there was no appearance of obstruction or entanglement. The teamster informed me that the horse eat his morning feed with his accustomed avidity, and worked during the forenoon as well as usual, but that he drank very heartily after eating his noon feed, and was immediately seized with violent pain and uneasiness.

"Ruptured stomach," says a celebrated writer, "may be regarded as a natural termination of an unrelieved case of gorged or tympanitic stomach. Ravenous feeders are liable to it, or copious drinking on a full stomach may produce it." Again, he says, "there are two reasons why we should be able to pronounce, at once, on a case of ruptured stomach, First, the preservation of the reputation of the medical attendant; and secondly, to avoid annoyance to the patient by administering medicines when the case is hopeless."

So far as my own experience goes, during a practice of twenty-five years in this city, the causes of ruptured stomach are to be ascribed to rapid feeding, and freely drinking afterwards, and then being immediately put to labor.

PACK YOUR THOUGHTS.—Do not assume that because you have something important to communicate it is necessary to write a long article. A tremendous thought may be packed into a small compass—made as solid as a cannon-ball, and, like a projectile, cut down all before it. Short articles are generally more effective, find more readers, and are more widely copied than long ones. *Pack your thoughts closely together*, and though your article may be brief it will have weight, and be more likely to make an impression. 'Ye who write for this busy age,' says a late writer, 'speak quick; use short sentences; never stop the reader with a long or ambiguous word; but let the stream of thought flow right on, and men will drink it like water.'—*How to Write.*

WHAT IS SPAVIN?

Written for the "London Veterinarian."

BY WILLIAM MILES, R. C. V. S. L.

DEAR SIR: — I perceive you are involved in a wearisome, wordy war, with one of the Agyrtæ, anent the efficacy of tincture of moonshine in curing spavin: do not you think, instead of wrangling about methods of cure, we should first precisely define what *is* a *spavin*. Or rather let us abolish them altogether, or leave their cure to those outside barbarians, the quacks, the only fishermen who set nets to catch the wind, and take cock lobsters in them.

Is it not time to reform our Nomenclature? In this *ultima thule*, spavins are as common as spuds. We have a soi-disant veterinary surgeon who is spavin-mad. All horses sent to his establishment to be examined, come out spavined, whether it is cataract, stringhalt or broken wind; perchance a bridle lameness, or may be, lame of an ear, it's all the same, Eureka! cock-a-doodle-do-o-o, "*he's spavined*," and the worst of it is, all those Solons, the farriers, who know as much of the hock as Caliban of Prospero's book, fearing to be thought less lynx-eyed in seeing into *Orcus*, discover spavins in the most extraordinary places, so fast as Aubrey did ghosts, and, I am of opinion, by the same sense,—the smell! I've seen so many fine horses condemned for "*incipient invisible spavin*" (there's a wrinkle for you), that, like Count Bathyany, I'm beginning to think nothing of them. Here's an El Dorado for the British Remedy!

Some time ago I contributed to a local paper a series of articles entitled "*The Humours of Farriery*;" a truthful exposition of the science of hippognostics as it ever was, is, and possibly will be, in which I let that most sapient animal Jean Taureau, have a peep at myself, "detrahere pellam." Turning over some papers I alighted on an unpublished one, apropos de Jacks.

ON SPAVIN.— *Syn. Jacks.*

There are a great variety of spavins, there's incipient spavin, and ox spavin, bog spavin, and blood spavin, fat spavin, and bone spavin.

Spavin is one of those bothersome nightmare diseases, that would puzzle the whole Philadelphia bar to make head or tail of. What can be made out of its nature from its name? SPAVIN! I'm gravelled! No two farriers or horsemen I ever met with, were in one mind about its history or geography, except that it is somewhere about the hock. Some say it's a lameness, others say it is not; all that I can make out with certainty is, that it is one of those indefinite terms which horsemen have invented to designate hock lameness, or deformity, or either, or neither, to hide their ignorance of

its nature, if there is, or they fancy there is, anything the matter; or, what is of more importance, they want to depreciate the value of an animal they are purchasing.

If a horse is big boned, has large angular bony hocks,—"Ha! he's spavined," cries out Sisiphus; well, but what is spavin? All that he can tell you is, that it's a—kind of a—you see—sort of a—you know what I mean—a SPAVIN! Where is it situated? Oh! in the hock, he believes. What part? He don't exactly know. Is it outside or inside, before or behind the joint? Devil a bit can he tell you; nor does he know whether it is an affection of the bones, cartilages, ligaments, synovial membrane, bursæ mucosæ, or veins, I have seen every part pointed out as its seat,—Capital mystery! What a chasm this little word covers in the countenance of the farrier, horseman, or secular groom!

If your horse *is* lame behind, (possibly from bad training or shoeing), and it isn't curb, or sandcrack, or strained flexors, ask your farrier what is the matter, and he'll tell you plump, he's spavined, —and immediately proceed to fire or blister, as in that case is made and provided, and when he *is recovered* boast what a *cure* he made.

If you don't like *torments* here's an invaluable secret.

A Catacidal Charm to cure a Spavin or a Curb } Take a ram cat, and skin him alive, and then tie the warm skin on the hock of the horse; If one does not succeed proceed to a second catastrophe.

Another cocksure Remedy or pleasant Pastime for Christians. } Get a fine fat hen, or a cock, and cut open his or her belly, and tie him or her on the hock of the horse all alive, alive o!

A third A sweet Balsam, *Utile et dulce.* { To prevent a swelling from running into a spavin, shave away the hair about it, and anoint it for three days with *natural balsam*, and then lay on a charge, made of three ounces of oil of roses, an ounce of bole, half an ounce of wheat flour, and the white of an egg—to sweeten it I guess.

"But if these will not do the deed,
To burning with hot irons proceed.
For when your case can be no worse,
The desp'rat'st is the wisest course."

Some diseases, as strangles and spavin, "*breed*," and it is a question worthy of the consideration of sportsmen, agricultural associations, &c., how far such diseases may be improved by judicious crossing; such as a cross between a hard disease and a soft one,—*i. e.* between strangles and bone spavin,—might not the soft one (strangles) tend to mollify the hard one, and thus render spavin more easily curable? Others, again, "*grow*," as splints, curb, ring-bone, cataract, &c., and may be regarded as parasites, animal, vegetable, or zoophyte, like the ivy, louse, or sponge, and might be transplanted from one place to another; or suppose a cataract was

to be engrafted on a ring-bone, it might possibly produce a spectacle that a pur-blind horse might see through. I merely throw out these suggestions for future enquiry and experiment among learned naturalists; perhaps they are not more improbable than "decomposing spavins," and "lubricating ligaments," by the British Remedy.

WILD HORSES IN ILLINOIS.—A drove of 250 Mexican and Texan horses, embracing mustangs and rangers, were recently taken into Ogle Co., Ill., for a market. A local paper says:

"The horses arrived on Sunday last, and are now feeding on the Buffalo Prairie, and recruiting in order to be ready for sale at auction near this place. They are attended by several Mexican *barcaras*, or lasso-men, who, in case one shows any inclination to depart, give chase and brings him up 'all standing' with the lasso. We anticipate a lively and interesting time on the 22d, when they are to be sold, as the barcaras will be in attendance, lassos in hand, to catch to order. These horses are all young, from three to four years old, hardy, and easily kept, and will prove most serviceable for farming and saddle purposes."

THE CATTLE PLAGUE.—A cordon has been drawn round Galicia and Moravia, where the murrain is raging, so that no cattle can be driven to Bohemia or Lower Austria. A Genoa paper says that in the Liguria, in the neighborhood of Voltri, the epidemic prevailing among the cattle in the north of Europe had been manifested in several instances. The natives had given it the name of 'lepra;' and the milk of cows affected by it was sour and unfit for use, and no one dared to eat of the meat of beasts that had shown symptoms of the malady. About forty cases had been ascertained there, but from all other parts of Piedmont the reports state that the cattle are in a very healthy condition.—*Edinburgh Medical Journal.*

THE AGRICULTURAL AREA OF THE UNITED STATES.—The territory of the United States extends over an area of more than 2,300,000 square miles. Its extreme length is nearly 2,700 miles, and its greatest breadth 1,600 miles. Its general shape may be considered a parallelogram 2,700 miles by 1,600. The value of our harvests in 1850 exceeded $1,000,000,000. At that time there were 113,000,000 acres under cultivation, and 180,000,000 more were included within the limits of farms, in all 293,000,000. This falls short by only some 30,000,000 acres of the total amount of improved lands within the limits of the four great European realms—Britain France, Austria and Prussia.

DISLOCATION, OR LUXATION OF THE PATELLA, (COMMONLY KNOWN AS DISPLACEMENT OF THE STIFLE.)

A correspondent desires us to inform him "of the mode of procedure in reducing a luxated patella, and the notable symptoms observed in an accident of this character." Our own opinion on this subject, is familiar to those persons who have perused "*The Modern Horse Doctor*," and therefore, by way of variety, we respond by offering a quotation from "Blaine":—

"*Dislocated Patella.*—This accident is of rather common occurrence. The bone, however, is always dislocated outwards; the form of the lower end of the femur, the strength of the ligaments, and the power of the muscles on the outward side, all prevent the bone from being dislocated inwards. It sometimes happens from weakness, when mere motion will be sufficient to reduce it. Nevertheless, in other instances, surgical aid is needed. In such cases proceed as follows:—in the first place, have the leg drawn forward, if necessary, by means of a rope passed over a beam or rafter, and around the fetlock; then push violently against the dislocated bone, the position of which will be accurately told by the swelling it produces. It will generally fly back with some noise; and having got it in its proper situation, partially release the drawn-up leg, and have an assistant to hold the bone justly, by pushing against it for several hours; afterwards blister the part, to render the animal averse to using it.

"The signs of a dislocated patella are the rigid determination of the limb backwards; exactly as might be expected from the loss of the moving pulley into which the extensor muscles of the thigh are implanted. The flexor muscles, moreover, having no antagonists, the limb is drawn downwards, and remains firmly flexed, the toe dragging on the ground. The displacement of the patella itself, is less a guide than might be imagined; but the complete determination of the limb backwards, and the flexion of the pasterns and foot, will serve to distinguish it; it can at once be detected by grasping the condyles of the femur. An examination of both limbs will make clear the loss of the protuberant patella in its natural situation, and enable us to see the bone towards the outer edge of the thigh; but sometimes so deeply imbedded within the muscles of the part, particularly in the coarse fleshy horses, as to almost escape cursory observation. This occurs from the powerful actions of the tensor tendons implanted within it; to which cause we must also attribute the pain that is sometimes observed in these cases."

Remarks.—The Editor considers Mr. Blaine's method of reducing luxation of the patella very faulty, inasmuch as he recommends "a rope affixed to the fetlock, to be passed over a *beam* or *rafter*, and the process of pushing *violently* against the dislocated bone." Now, as it happens, there is no need of *beam* or *rafter* power, nor violent pushing; for, appliances of this sort cannot be used without considerable risk; and under the circumstances, it is impossible to calculate, with any degree of certainty, the amount of mechanical power employed, hence, much injury may occur, in the luxated region, and then there is danger of bringing the animal to the ground. The best method is as follows:—The medical attendant secures an assistant, and directs him *carefully* to *advance* and *raise* the limb by the conjoint action of his shoulder and hands; the latter places one hand on the superior extremity of the tibia, and inferior of the femur, pressing them backwards, and with the other hand grasps the patella, (stifle bone,) and, at the proper moment, manipulates it over the inferior condyles of the femur. This is the safest and most rational plan of procedure; and to accomplish the reduction, no "*violent pushing*" is required. All *violent* measures are to be avoided, for they savor too much of ignorance and brutality, and tend to show that the manipulator "has been weighed in the scales and is found wanting." Let it be understood, that we do not object to the usual method of advancing and raising the limb by means of hobble and *side line*, placed on the affected extremity—the force applied, to be regulated by manual traction.

LATE IMPORTATIONS.

The following stock were selected and shipped from England, by Messrs. Betts & Co., August 12th, in a steamer, and were expected to arrive at Montreal, Canada East, on the 26th of August:—

Thorough-bred Stallion, for Quincy A. Adams, Esq., Boston; Thorough-bred Brood Mare, do. do.; Short Horned Bull, for R. H. Dulany, Esq., Virginia; two Short Horned Heifers, do. do.; South Down Buck, from Jonas Webb, for R. H. Dulany, do. do.; ten Devons for R. Linsley, Esq., New York City; two Shropshire Bucks, for Captain Fullerton, Boston; one Short Horned Heifer, do. do.; three Pigs from Prize Stock, for C. B. Haines, Esq., New Jersey.

"Mango," a thorough-bred Stallion, color brown, 16 hands or more high: Mango was sold in 1852, to the King of Belgium, for twenty thousand dollars. Mango was winner of the St. Ledger and many other races; he is sire of "Emilius," who is the sire of upwards of 520 winners; also, sire of "Negretta," the best horse ever bred in Belgium.

Mr. Betts' Second Importation of Stock (consisting in part of the following), will arrive in America from England in September or October:

Cleveland Blood Mare, for R. H. Dulany, Virginia.

Thorough-bred Stallion for Col. Ware, Virginia.

Six Shetland Ponies for Col. F. Hampton, South Carolina.

Cleveland or Coach Stallion, 6 years old, rich bay, with black legs, great bone and superior action, stands 16 hands 1 inch high; has been exhibited five times and received five prizes.

"Bob Major," thorough-bred Stallion, color brown, 15 hands high, 6 years old, bred by Sir Joseph Hawley, by old England, out of Vibration.

"Queen of Egypt," Brood Mare, stinted to Autocrat.

"Bianca," Brood Mare, bred by Lord Eglington, by Touchstone, out of Queen Bess, sister to Beeswing; stinted to Autocrat.

"Rosina," Brood Mare, by the Emperor, out of Phingari, stinted to Teddington.

"Burlington," 1 year old, by Kingston, out of Rosina.

"Fyfield," 1 year old, by Teddington, dam by Voltaire, out of dam of Collingwood and Glacus.

"Victor," by Pottinger, out of Eastern Lass.

"Bay Mare," by Sir Tatton Sykes, out of Monimia, by Sultan; stinted to Teddington.

One or two colts are expected by the Flying Dutchman.

Teddington served last year a limited number of mares (20,) at $150 each.

Autocrat, we believe, served a limited number of mares at $150 each.

Among the stock lately imported by Mr. Betts, are two of the most beautiful South Down Yearling Bucks we ever saw. The price of one of them is $1100. Mr. B., also brought over a Brahmin Bull for Col. Hampton, of South Carolina, which will be a great novelty in that State. *"Spirit of the Times."*

Professor Simpson's Caustic.—The new caustic recently introduced by Professor Simpson, of Edinburgh, consists of an ounce of highly dried sulphate of zinc, mixed with a drachm of glycerine, and applied as a paste to the diseased part. It quickly produces its effects, and a few applications are deemed sufficient to effect a cure. One great advantage which this caustic is said to possess is, that it acts only upon parts denuded of cuticle, therefore the fingers are free from its influence. It has been successfully used by the human surgeon, but we question if it will prove sufficiently powerful for veterinary purposes. Of the efficacy of the *chloride* of zinc we can confidently speak.—*Veterinarian.*

WOLLASTON PARK.

PROSPECTS OF SOON HAVING AN ABUNDANT SUPPLY OF DELICIOUS PEARS IN THE BOSTON MARKET.

Wollaston Park is situated in the town of Quincy, Mass., near the sea shore, commanding a fine view of the harbor and its islands. The estate adjoins that of Hon. Josiah Quincy, Jr., and contains over one hundred acres of very fine land, presenting a greater variety of surface than any similar location in Massachusetts. The owner of the estate is the well-known florist and landscape gardener, Mr. Leuchers, under whose hospitable roof we lately had the pleasure of spending a few days. Mr. L. has stocked a part of his grounds with over forty thousand imported trees; among them are a great variety of rare and costly fruit and forest trees. We noticed some very fine specimens of the Scotch pine, which at full growth are said to attain the height of one hundred and fifty feet. As these trees flourish near the sea shore, they are therefore of value to those about erecting buildings in such locations. Mr. L. intends hereafter to engage extensively in the cultivation of pear trees; he has already planted two acres, and intends to stock other ten acres with four of the best varieties, viz: Duchess d' Anglonem, Louisa, Bon de Jersey, Bartlett and Sickle, all of which are known to thrive well in the old Bay State, and probably are the only ones that are worth cultivating here. The two acres now planted are in excellent condition, and next season will be in good bearing order, so that the lovers of this delicious fruit may, ere long, be able to gratify their appetites, without paying the exhorbitant sum which has hitherto been demanded for it. If Mr. L. succeeds in his praiseworthy enterprise, and we have no reason to entertain the least doubt, for his knowledge in this matter is the result of life-time of study and practice, he will earn the title of public benefactor, for there is no fruit on the surface of the earth that is so acceptable to the palate of an invalid—so easily digested, and so well adapted to palliate indigestion and secure a lax state of the bowels as a ripe, luscious pear. The mere sight of one "makes a man's mouth water." A half a dozen good ripe pears, just gathered, are of more value to an invalid than all the pills and pukes in the world, and even a dying man was never known to refuse a good ripe pear. So fetch along the pears,—cheapen the article,—and every one will give the *medicine* a trial, and thus encourage Mr. Leuchers. "So mote it be."

UPWARD TENDENCY OF HORSE FLESH.—A resident of Illinois, lately paid $5000 for a "Black Hawk" Colt.

SPORTING ITEMS.

The following are the engagements of the American horses during the present month:—

Oct. 13....Pryor and Prioress, Carewitch, Handicap, at Newmarket—160 subs. Two miles, 468 yards.

Oct. 26....Lecomte and Pryor, Sweepstakes for All Ages, at the Newmarket Houghton Meeting. Four miles, 1 furlong, and 173 yards.

Oct. 27....Prioress and Babylon, Cambridgeshire Stakes, at Newmarket—164 subs. One mile, 240 yards. "Porter's Spirit."

Prioress is again beaten—in the race for the Sussex County Cups at Lewes, Prioress, Tournament, Polestar, Alice, and Chevalier d'Industrie; *started*. Prioress, ridden by *Charlton* an experienced *jockey*, came in fourth. Distance two miles, Time: 3 min. 47 sec. As *Midshipman Easy* says—"Better luck next time."—(Perhaps!) In regard to this interesting trial of *strength* and *endurance* (mark the phraseology,) a correspondent of *The London Era*, writes as follows:—

"The Sussex County Cup was the principal contest on the afternoon. It is the same trophy that was won by Virago, at Doncaster, in 1854, and was not parted with last year, in consequence of Pantomime walking over. It is a very splendid trophy, and quite throws into the shade the majority of racing prizes. Five runners were started; but Tournament was alone intrusted with any extended outlay. He looked quite in his old form, and went like a bird. Fordham was very gay over his mount; and when Flatman asked him if he was in the race, there was a smiling and quiet rejoinder that he was—a d, added the man jockey, "going to win it, too." There was quite a rush to see Prioress, the American mare who now made her second appearance in public since she left the shores of Columbia. It struck us most forcibly that she was not by any means up to the mark—nor near her Goodwood status of condition; and it turned out afterwards that she had been put under rather severe work. If that system is pursued or continued, it will be good by to her chances here. She has a white blaze on her forehead, is somewhat chopped off behind in her hind quarters; and her forelegs were bandaged. On this occasion she had the advantage of the jockeyship of John Charlton, the successful pilot of Blink Bonny for Derby and Oaks; and thus Mr. Ten Broeck adopted every possible means to bring out what capabilities his imported mare possessed. She found several supporters in the ring, who thought that there was a far better inkling or chance of success here than on the Duke of Richmond's domain. Polestar looked fit enough, not too bright in her coat, but was not so good a favorite as the American mare. We have detailed the race below, so that very little commentary will now suffice. Polestar made strong running after the first half mile, but was caught with the greatest freedom by Tournament on approaching the stand, passed, and defeated equivocally easy by three-quarters of a length. Directly he had shot his pretty looking head by the post, 100 to 10 was booked about him for the Leger; and the taker wanted to go on. Nine to 1 was taken freely towards the close of the day, when 8 to 1 was the highest offer. Polestar, after Yellow Jack fashion, got her old position of second. Prioress could not live the pace, and was never enabled to get up from end to end. She could not have been ridden better, as Charlton tried her along the half distance; but the mare could not answer in effect, as she was evidently out-paced. This was Charlton's first mount in the "stars and stripes," and the multitude wished both horse and rider success. It was not on the cards, however, this time, and the *furore* of the American string is fast subsiding."

Fast Steamers.—The American steamer Vanderbilt lately beat the British steamer Persia on a trip across the Atlantic. The victor "came in" just thirty minutes "ahead."

DEATH OF GLENCOE.—This celebrated Stallion departed this life on the 25th of August. He drew his last breath about 5 o'clock A. M., "from a very violent attack of lung fever." Possibly he died for want of breath.

TROTTING MATCH.—The remarkable contest which lately took place at Elmyra, N. Y, between Flora Temple, Lancet, Miller's Damsel, and Red Bird, was witnessed by over 10,000 people.

Flora Temple won in three straight heats. Time, 2:26½, 2:27, 2:25.

NEW YORK, Sept. 15th. The following are the results of the trots to-day:

Over the Union Course—Purse $5000. 3 mile heats. Prince against Lantern. Prince won first two heats. Time, 7:53½. 7:55. Lantern lame.

Over the Centreville Course—3 mile heats. Purse $5000. Lancet against Rose of Washington. Lancet won first two heats. Time, 7:53¼, 8:8½.

The weather was splendid. *New York Paper.*

STATE AND DISTRICT FAIRS OCCURRING DURING THE MONTH OF OCTOBER.—

Indiana	Indianapolis	October 5—9
New York	Buffalo	" 5—9
Iowa	Muscatine	" 6—9
New Hampshire	Concord	" 7—9
Tennessee	Nashville	" 12—16
Kentucky	Henderson	" 13—16
Alabama	Montgomery	" 27—30
Connecticut	Bridgeport	" 13—16
East Tennessee	Knoxville	" 20—23
Massachusetts	Boston	" 20—24
Maryland	Baltimore	" 21—25
West Tennessee	Jackson.	" 27—30
Virginia		" 28—31

At the race for the Warwick Cup, three horses ran. Lecomte came in last, was twenty lengths in the rear of Fisherman the winner. As the Dutchman has it, this is "much better as worse."

BLEEDING DARK BLOOD.—It is very common for patients to remark on the color of the blood removed by the application of leeches. They will say—"It is very well, doctor, that I have been bled, for the blood was very bad—as black as your hat." The leech-women generally maintain similar views, and the practitioner is perhaps pleased to find a new argument adduced in favor of the steps which he has taken in having his patient bled. Of course there is a real peculiarity in the blood removed from different patients; but the profession are not in the habit, and indeed not capable, of judging in this summary manner by the darkness or lightness of the color. The blood removed by leeches has generally the aspect of venous blood, being principally from the minute vessels which form the extreme ramifications of the arteries and veins, and which carry blood of a dark and venous character. Whilst on the subject of blood-letting, I may mention a fear which exists, that when bleeding has been once performed, it will be requisite to have it repeated periodically. If the necessity for blood-letting has arisen from causes which are likely to be permanent, it is true that it may again be necessary to have recurrence to the same treatment; but it is too much to say that the mere fact of taking blood imposes on us the necessity of repeating it periodically.—*Medical World.*

EDITOR'S DRAWER.

We are indebted to B. P. Johnson, Esq., for a copy of *"The State Agricultural Journal Extra," containing a list of premiums and regulations for the seventeenth Annual Exhibition of the New York State Agricultural Society, to be held in the city of Buffalo, October* 6, 7, 8, and 9, 1857.

Our thanks are due to Messrs. Fowler and Wells for a copy of one of their valuable *Hand-Books for Home Improvement, entitled, "How to do Business. A pocket Manual of Practical Affairs, and Guide to Success in Life." &c., &c.* It is just as important for a young man, about embarking in business, to understand its theory and practice, as it appears to be if an individual were about to commence the practice of medicine or law. A work of this kind is equivalent to many hundred dollars capital, to any young man just entering on practical business life; in fact it is the most practical work on the subject that we have ever read. Fifty cents will procure a copy.

We have also received from the publishers, Messrs Fowler & Wells, a neat work entitled:—*Demands of the age on Colleges. A speech delivered by the Hon. Horace Mann, President of Antioch College, before the Christian Convention, at its Quadrennial Session, held at Cincinnati, Ohio, October* 5, 1854. As an appendix we find an address by President Mann, to the students of Antioch College. It is just such a composition as might be expected from the pen of so ripe a scholar.

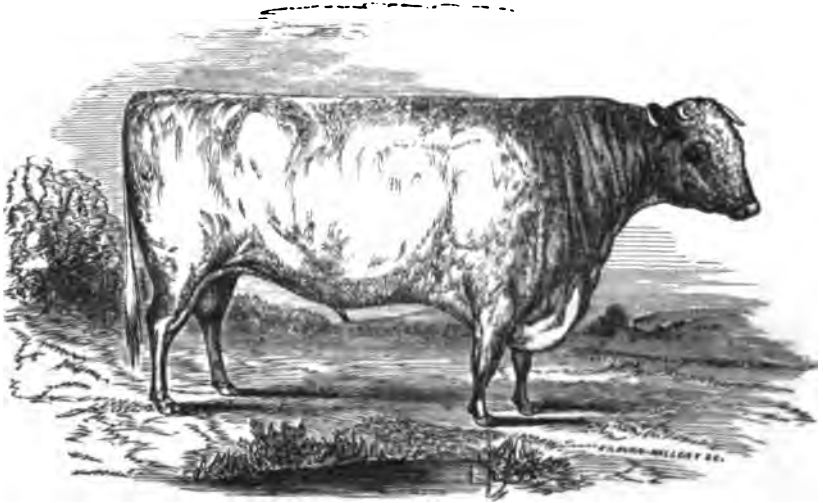
"Prospectus of the Agricultural College of Michigan." The present prospects of this College looks flattering, and we are glad to learn that over sixty persons have applied for admission. This is encouraging to the Faculty, and to those enterprising individuals who have succeeded in procuring the necessary funds to carry out their project.

"The plates of Maclise's Surgical Anatomy with the Descriptions. From the English edition. With an additional plate from Bourgery." Edited by R. U. Piper, M. D. Printed in oil colors, after Baxter's process. Boston: Published by John P. Jewett & Co. Cleveland, Ohio: By H. B. B. Jewett. 1857.

Mr Jewett has our thanks for a copy of the above. We have the original English edition before us, and on comparing the two, we find that in Americanizing the former, it has undergone considerable improvement. This is creditable to the American editor and publisher, for many English works re-published in this country are awfully mutilated, so that some of them are nothing more than mere "catch pennies." We observe that these plates are printed in "*oil colors.*" This is quite an improvement over the ordinary method of "*hand coloring,*" which is never uniform nor correct. The plates before us appear to be colored with mathematical accuracy; all life like, and suggestive of the actual condition of parts, and as Professors Hayward Bigelow; and Agassiz, have recommended the American edition, it needs no higher authoritative endorsement. We advise our medical friends, and in fact, all others who have any desire to study the science of Anatomy, or to make themselves acquainted with the complex mechanism of the human frame, to procure a copy of this valuable work. Price five dollars. A specimen copy can be seen at this office.

"The Illustrated Family Gymnasium," containing the most approved methods of applying Gymnastic, Calisthenic, Kinesipathic, and Vocal exercises to the development of the Bodily Organs, the Invigoration of their Functions, the Preservation of Health, and the cure of Diseases and their Deformities. With numerous Illustrations, by R. T. Trall, M. D. Published by Messrs. Fowler & Wells, New York. Complete in two numbers. Price $1,25.

If every man, woman, and child in these United States, could be induced to "read, mark, learn, and inwardly digest" the contents of these valuable productions, and thus *mechanically* accomplish their physical salvation according to the rational and physiological rules therein inculcated, the reign of pathological terror would cease, and medicine might then be thrown to the dogs, for man and his congeneors would not need it. The "Illustrated Family Gymnasium," should have a place in ever family library.



IMPROVED DURHAM BULL.

(From Office of N. E. Farmer.)

THE AMERICAN

Veterinary Journal.

DEVOTED TO THE DIFFUSION OF VETERINARY KNOWLEDGE.

Edited by GEORGE H. DADD, Veterinary Surgeon.

Published by S. N. THOMPSON & Co., 97 Union Street.

PRICE, ONE DOLLAR PER ANNUM.

VOL. II. BOSTON, MASS., NOVEMBER, 1857. NO. 11.

SLIPPERY PAVEMENTS AND FAST DRIVING.

Mr. Editor: If you have ever been unfortunate enough to see a noble horse come suddenly down whilst being driven rapidly over the soon worn and proverbially slippery pavements of some of our streets, and snap the bone of one leg directly asunder, you can judge of the sensation I experienced last Friday, when precisely such an accident (?) occurred in Washington street, nearly opposite the Marlboro' Hotel.

To see a fine animal, in full strength, flesh, muscle, and spirit, *instantly* spoiled, is a most painful sight. Should not drivers be *peculiarly* cautious, when passing over the broad, flat, granite blocks, which are worn smooth so quickly? If they regard their own property, or that of their employers, they certainly will go at a less rate of speed than is nearly always maintained, especially by "Express" wagons, over these dangerous pavements. And surely the most careless and rough driver could hardly fail to be moved by the pitiable plight of a faithful animal, who had just been doing his best to serve his master, and then was thrown down and ruined forever. I think it will be long ere I lose the heart-sickening impression I received when the poor creature I allude to, struggled up and stood on *three* feet, the hoof of the broken limb swinging uselessly, as he held it up from the ground.

In this connection may I ask if no devices of modern surgery (by using anæsthetic agents at first) can save a horse from being killed because he has broken his leg—or rather, *had it broken for him*?

If the limb could be put into position and splints applied, whilst the animal was made motionless by ether or chloroform, could not union of the bone be effected, which would make the animal useful for draught purposes, if not for speed? It seems barbarous to kill these unfortunate creatures, as is uniformly done. Please say a word for them Mr. Editor, and also remonstrate against such rapid rates of driving through our narrow and crowded *thoroughfares, especially at high noon.* Should a horse not fall, his legs must often be badly strained; what are a few minutes gained to the loss of a valuable and generous animal like the trained horse? I hope that, if remonstrance and self-interest effect nothing in this direction, the law may. PHILLIPPOS, *in Boston Transcript.*

The writer of the above communication in a private note, informs us, "that he is almost daily made indignant at sight of the barbarous treatment horses receive in our streets." An individual who possesses courage enough to enter his protest against the cruelties daily inflicted on Nature's menials, is a Samaritan of the first order: and, his name should be known and reverenced, as a philanthropist: he, however prefers to pass under an assumed one, and having committed it to us under the safeguard of editorial secresy, we are bound not to disclose it.

He asks "If no devises of modern surgery can save a horse from being killed, because he has broken his leg—or rather had it broken fo him?

This is our answer:—It depends altogether upon the nature and seat of the fracture. A *simple* fracture below the *carpus*, or *tarsus* can be reduced and successfully treated, and the subject may be restored to comparative soundness and usefulness. The fractured bone if kept in apposition by means of splints and starched bandages for a short time, will readily unite: age, and idiosyncrasys, operating unfavorably, or not, as the case may be. Cases are on record, and several have occurred in our own practice, showing conclusively that accidents of this character, may sometimes terminate favorably.

The reason why horse-owners have not allowed their animals to be placed under the ramparts of "*The devices of modern surgery*," is perhaps because they have too highly estimated the *cost.* Now it costs but little to reduce a fracture, and only a few subsequent visits are necessary to test the experiment, consequently, the physician's fees are but a mere trifle. The almighty *dollar* and *cent* question is a small affair when we contemplate the value and usefulness of the poor sordid slave of man, and we are unwilling to believe that any Christian man would unfeelingly doom a valuable servant to destruction, on the score of profit and loss, we would rather exercise charity, and, suppose that he was a stranger to the "devices of modern surgery."

Mr. Percivall, one of the great lights of our art, acknowledges that English V. S's. are in the rear of the French on the subject of the reduction of fracture, and informs us that, "The French have treated this subject, in their usual systematic and copious style. The unfrequency of the occurrence of fracture, together with the disadvantages under which its cure must be at all times undertaken, will, in a great majority of cases, serve to account for this seeming dereliction of duty on our part; though I really think myself, both these reasons are insufficient to shield us altogether from the imputation of having given the subject less consideration than, even under these acknowledged disadvantages it is deserving of." It may be, that this opinion emanating as it does from so high authority, has deterred many men from trying the experiment, yet in a subsequent part of the same work, from which the above quotation is taken, the author shows that many fractures occurring in various parts of the osseous structure of the horse, have been cured.

A simple fracture then, unaccompanied with other injury does admit of cure. It is not necessary however to sling the patient; the slings do more harm than good, especially in this case, when the subject be of the nervous temperament; the best plan is not to be too officious nor attempt to do too much; for, nature is the physician, and we, her servants, must do no more than she bids us. Our business is to reduce the fracture, and by means of the "appliances of modern Surgery," do our best to secure apposition. We are expected also to furnish our employer the necessary hygienic information so that the intentions of nature shall not be thwarted, and when we have *done*, and *said* all that is necessary, let *nature* take her course.

It is remarkable, that most of the inferior orders of creation, when suffering under the accidental misfortune of fracture, exercise extraordinary intelligence, and will perform all the ordinary feats of progression on the sound limbs, favoring the unsound one as much as possible.

There are some fractures that do not admit of cure, among them, are cases of a *compound* character; or when the fractured bone protrudes through the skin: *complicated*, when the surrounding tissues are lacerated; *comminuted*, or when the bone is splintered into several fragments; and those which are termed oblique.

We have only alluded to *simple* fracture, unaccompanied with other injury, occurring below the knee and hock, as cases likely to prove creditable to the surgeon, and ultimately, prove remunerative to the considerate and Christian owner. But a case has lately occurred in our practice, which goes to show, that *simple* fracture of the radius, the bone above the carpus, can be successfully treated.—There are many other fractures of the osseous structure, which science and skill, aided by nature, have demonstrated as curable.

It appears that Hurtrel d' Arboval, is the best authority on the subject of fracture, and Mr. Percivall has in his Hippopathology introduced copious translations from the above author, and in view of giving our readers the benefit of the same, we shall now introduce a few brief notes on *particular fractures.*

"*Fracture of the cranium.*"—Supposing the case to be one of depression, without injury to the membranes or brain, the trephine must be applied to the contiguous sound bone, so that an elevator may be inserted, in view of raising the depressed part. As these operations must be performed by a surgeon, we shall say nothing about the necessary incision, or mode of suture, &c.

"*Fracture of the arch of the orbit.*" A case of this character occurred in the practice of Mr. Prichard, which "did well; the bone became re-united."

"*Fracture of the nasal bones,*" has often been successfully treated.

Fracture of the superior maxillary bone," was once treated by Mr. Cartwright. "In a month the parts were healed."

"*Fracture of the lower jaw.*"—"In fracture of this bone, Mr. Blaine once succeeded very tolerably by making a strong leather frame that exactly encased the jaw, and which he made to adhere by means of pitch."

Fracture of the ribs.—Simple fracture of the same, is almost invariably curable. A case of this kind is to be seen in the office of the Secretary of the Mass. Board of Agriculture.

Fracture of the pelvis.—This is quite a common occurrence among American horses, and a long rest often proves efficacious, the treatment is merely palliative.

Fracture of the bones of the tail. After reducing the fracture, and securing coaptation "twenty-five or thirty days give liberty to the tail." *Time* therefore is the remedy.

"*Fracture of the scapula.*"—Under proper treatment, "at the end of four months the animal did not walk lame, but still halted in the trot."

"*Fracture of the humerus.*"—"Cases of cure are related of fractured *humeri.*"

"*Fracture of the arm or radius.*"—"In this case, the obstacles to recovery are not so great as they are in that of the shoulder." Mr. Gloag relates a case of fracture of the radius, after proper treatment, "the animal became as useful as ever, for common purposes."

"*Fracture of the femur, or thigh bone.*—Prof. Dick furnishes an interesting case of fracture of the inner condyle of the femur, "which terminated in complete recovery."

Fracture of the hock.—Mr. Cartwright contributes a case for the "*Veterinarian,*" which is now perfectly well, with the exception of a little enlargement in the place of union."

"*Fracture of the leg or cannon.*"—"I know one or two old practitioners who are in the habit of treating such cases in a very summary, and at the same time in a very successful manner. They employ such common support with splints, tow and bandages, as the case seems to require, and then the animal (with his leg bound up) is turned out, season permitting: otherwise turned loose into a yard or box, where there is not too much straw to incommode his movements. He will take special care not to impose weight upon the fractured member: and provided we have well secured the parts, *nature* will generally perform the rest."

"*Fracture of the pastern.*"—"This is a fracture most readily reduced, and as easily maintained in coaptation. There are many cases on record of recovery from fractures of this and the coronet bone."

Fracture of the coronet bone.—"So long as the fracture is neither compound nor complicated, it will unite without any of our aid; at least nothing further is required than a bandage dipped in some adhesive matter. The horse, however, continues lame a long while: as long as the horn, around the coronet, presses on the soft parts; and, indeed, until the *old* bone is replaced by the *new*. Should anchylosis follow, his lameness will be perpetual."

The reader is now furnished with evidence sustaining, what may be termed the *bright* side of the argument, yet we would not advise any one to be too sanguine of success in the treatment of even the most simple kind of fracture, for many failures are to be expected, but, "try, try again" is our motto.

When the accident is of so grave a character, that there is not the least chance for the animal, it is best to put the poor creature out of misery at once by severing the spinal chord. This is done by introducing a knife at a point, between the *atlas* (first bone of the neck) and dentatus, (second bone.) If the spinal marrow be severed at this point, the animal dies instantaneously, without a struggle.

In regard to fast driving.—This is a serious and growing evil, and not only endangers the lives of horses, in our crowded streets, but is also perilous to pedestrians. As the law now stands, it is difficult to convict a man of the reckless crime of fast driving. The only way that we know of, to put a stop to such recklessness in our crowded thoroughfares, is to legislate so that no man shall be allowed in a crowded location to drive faster than a walk.

ARABIAN HORSES.—Mr. Richards of Georgetown, Kentucky, has five Arabian Stallions, and three mares all of pure blood. Mr. R. intends to breed some pure Arabians, and then cross the Arab stock with Kentucky thorough-breeds.

INTROSUSCEPTION* IN THE HORSE.

ETIOLOGY—DIAGNOSIS—TREATMENT.

BY M. REYNAL.

Principal Clinical Professor at the Alfort School.

Translated by Mr. Percivall for the "Veterinarian."

The annals of science contained, that we know of, no mention of intestinal invagination, when, in 1823, M. Bouley, jun. published two cases of it, one of loose portion of intestine ensheathing itself, the other of the jejunal portion entering the cæcum. In 1826, the same gentleman published another case, this time consisting of the entrance of the cæcum into the colon.

Two years afterwards, in 1828, M. Dufour, in the "Memoirs of the Veterinary Society of La Manche and Calvados," and M. Renault in the "Recueil," published two very curious cases of intus-susception of the small intestine. And two others not less remarkable have been reported, one in 1831, by M. Dibeaux, the other by M. Rey, in the Comptes-rendus of the School of Lyons, for the year 1843. Lastly in 1850, M. Bolin has registered a case of admission of the cæcum into the colon, in a horse given up to the School for dissection.

The additional case we this day publish has appeared interesting to us, not only on account of the few examples already known in veterinary medicine, but likewise, and more so still, because it seems to afford some satisfactory explanation of the mode of formation of this pathological accident.

A horse given up to the School by his owner, who had possessed him no longer than about six weeks, during which time he had worked him hard, on account of presenting all the symptoms of anasarca, and being much reduced in flesh, evinced great debility, slight filling of the legs and dependent parts of the abdomen, with large petechiæ upon the pituitary, conjunctival, and buccal membranes, and laborious respiration. On the 24th, some symptoms of cholic and slight tremblings of the limbs were observed, and the animal often lying down and looking at his flank. Notwithstanding the subsidence of the symptoms of pain on the 25th, and the notion that the patient was better, he died on the 28th, with all the symptoms of traumatic gangrene. The terminating portion of the loose small intestine was found highly congested, and there was an invagination of the extremity of the ileum and the commencement of the jejunal portion within the terminating part of the jejunum and the cæcum. At a distance of nine inches in advance of the cæcum the jejunum had become swollen, from folding back upon itself in the

*Intro or intus,—susception consists of a portion of intestine, passing or dipping within another portion.—ED.

formation of the commencement of the invagination. Its tint, in the part which has preserved its normal relations, is a bright rose, contrasting remarkably with the deep red color of the intro-susceptted gut. The cæcum being cut open, exposed a portion of small intestine inverted upon itself, having its mucous lining marked with transverse folds, in a high state of congestion, which increased as we proceeded downward. This part of the invagination was constituted of an intumescence of large bulk, resulting from a sero-sanguinal effusion within the interstices of the coats of the intestines. This intumescence, which resembled the end of the penis in a tumefied state presented in its centre an aperture nearly of a finger's breadth, and which proved to be the terminal orifice of the small intestine within the cæcum.

One remarkable fact in this case was the integrity, if so we may call it, which the function of digestion preserved, in spite of the considerable derangement in the position and structure of one of the divisions of the intestinal apparatus; another, the little sympathy created by the intus-susception on the organism. The animal fed well up to the eve of his death; no stoppage of the contents of the intestines took place; a quantity of alimentary matters were found at the posterior orifice of the small intestine within the cæcum; the dung all along preserved its natural character. It has been observed that anasarca frequently accompanies asthenic congestions of intestine, accompanied with no pain, or next to none.

All practitioners — M. M. Bouley, jun., Dufour, Renault, Debeaux, &c., — agree that the symptom first observed is intestinal pain, manifesting itself in cholics, at times slight, at times violent, sometimes intermittent, and always assuming an alarming character previous to the termination, too often a grievous one, of cases of intus-susception.

Taking then, cholic as the symptom, and congestion as the morbid lesion, as unequivocally present in intus-susception, a question presents itself to our notice, which is—is the congestion of the parietes of the intestine a forerunner of the intus-susception, or is it the exclusive consequence of it?

To us, the first of these opinions appears, looking at it in all its bearings, more admissable than the second. In our eyes, effusion is both a cause and an effect of invagination: in other words, we are of opinion, that congestion precedes invagination, and that the latter once produced, determines, in opposing an obstacle to the circulation, a sanguineous stasis over and above the primitive congestion.

These considerations being premised, the production of intus-susception seems to us to admit of satisfactory explanation.

Let us admit for a moment, in order to render our ideas the more intelligible, that some part of the small intestine becomes the seat of

active or passive congestion. From this moment its coats begin to thicken and its caliber to visibly contract. The alimentary matters, in their passage through the open canal, will experience when they come to arrive at this part, an obstacle more or less difficult to overcome; their course conseqently, will be, if not arrested, at least retarded. But the peristaltic motion continuing without intermission is there not room for strong presumption that this congested portion, pushed on by a *vis a tergo*, will force its way into the successive portion of gut, frequently in a state of dilatation from the presence of gas?

Once invagination of the small within the large intestines, as the cæcum, effected, we may add to the cause already in existence that of the *weight* of the congested gut, suspended as it is within the cæcal cavity.

In fact, the contraction of the intestine at any given part under the influence, ordinarily, of cold water or sanguineous congestion; the dilation, or even the conservation of the normal caliber of the part, which is constantly in peristaltic motion; lastly, the operation of weight from the moment invagination has taken place in the cæcum;— such are the conditions under the influence of which intestinal intus-susceptions become frequently produced.

Etiology.—The question of the etiology of the intus-susception has not, one might say, commanded attention from observers who have reported cases of it. Most of them have failed to note the conditions in the midst of which cholics have made their appearance, though cholics constituted the only symptom by which the intus-susception manifested itself outwardly. Some, however, among whom stands M. Renault, have remarked that such horses have drank cold water after rapid work. Others have pushed their investigations farther. M. Bouley, for example, has for a long time taught in his clinique that cold water, suddenly introduced into the guts, excites rapid movements, and as a consequence, may occasion internal strangulations. M. Luscan, in his work, says, "*that possibly one may attribute those affections to a nervous excitation of the parts of the guts most susceptible of contractility, produced by the freshness of food covered with dew, gathered on a cold morning in the spring, and immediately carried out of the cold field into the warm stable.*"

In my own practice, in the clinique at the school, I have often observed a similar action give rise to cholics, leading to the presumption of the existence of intus-susception or volvulus or internal strangulation. Above all things, the ingestion of cold water seems to me, most ordinarily, and frequently, to be the determining cause of these divers pathological accidents. This assertion is not grounded only in observation, but in experimentation as well. For, if we cause to be swallowed, or introduced by way of experiment, from thirty-five to forty pints of cold water, we observe the intestines, the moment

the water touches them, briskly contract, move about, and turn over; in divers places even the mucous lining is densely injected.

Now, if a horse who is heated from work or has been standing in some warm situation greedily drinks more or less of cold water, may not the same phenomena ensue which are producible through experiment? The intestines doubtlessly experience energetic contractions all the way from the pylorus to the cæcum: in places even their caliber will become diminished, here and there the mucous coat will exhibit congestion, and under the influence of these changes of position, of rapid movements on themselves—under the influence even of the anatomical and physiological modifications they undergo, it appears to us perfectly allowable to imagine that a contracted knuckle of intestine, in a state of congestion, may become entangled in some other knuckle pursuing it, less affected by the water, and at times even maintained dilated or even gaping by the liquor collected being confined between two portions of intestine all but obliterated in their cavities through the sudden retraction of their coats together.

Nor is it only the intestines, however, which exhibit lively impressions from the action of cold water. The peritoneum, constituting their exterior envelope, and serving them at the same time as means of attachment and support, and facilitating their rapid movements, itself experiences, directly or sympathetically, modifications of texture and function which, in our opinion, offers a satisfactory explanation of the strangulations and inextricable knots, which the intestines on occasions form in conjunction with the peritoneum, which serves the purpose of ligature.

Human Combustion.—What is the relation of oxygen to the human body?

Every animal is busy drawing in and throwing out air, an unceasing, tidal ebb and flow. The oxygen of the air passes through the membrane of the lungs, is taken up by the blood, and carried to all parts of the body. It does here what it does everywhere—it burns. Slow combustion goes on in the body, and carbonic acid and water are produced. This combustion is necessary to keep up heat and fever, and the oxygen of the air must have carbon and hydrogen in the form of food and drink to feed upon.

Cut off man from everything but air, and the oxygen at every breath will cut away a portion of his frame. The most combustible parts are first consumed; he grows lighter and more emaciated every hour. First, the fat disappears, then the muscles are assailed, and lastly, the devouring giant, oxygen, attacks the brain and nerves, delirium ensues, and death closes the scene. Men say, He hath starved to death, but the scientific truth is the whole body is *burned to cinders.—Prof. Yeoman.*

LETTER FROM A CORRESPONDENT.

Northampton, Sept. 16, 1857.

DR. DADD,—Sir: I notice in the "Journal" a remark in reference to Wolf's Teeth. You said you did not feel in humor to attack that fallacy just then. I hope the humor will return ere long, and we shall hear from you on that subject soon. You are doing a good work in dispelling the errors prevalent in our country. Do not get discouraged, Doctor, there is too much ahead yet. An old friend called at my office last week, and said that he kept thirty or forty head of cattle, and that every spring since his father died—some twenty-five years since—he had taken his knife and amputated the caudal appendage of every one of them. I showed him your article in the "Journal" on *Tail Ail*, and tried to get him to subscribe for it, but could not. He has the name of being an intelligent farmer; he had been to Providence to hear the report of the American Board for Missions; he has been honored with a seat in the Legislature of our State, and is a very fine man. And yet he would give his money to convert the inhabitants of Kamschatka, or some other place, to his creed, while he engages in savage cruelty through ignorance. I was telling this to another farmer, he said he always did the same thing, and asked me why it was not necessary? I replied, that I supposed the Almighty knew how long to make an animal's tail, and that it inflicted unnecessary pain, and asked him to give me his reasons for doing it. This he said he could not do. I think, Doctor, if the good people who keep stock would all take the Journal, such cruel practices would soon be done with. I imagine that your readers are better posted.

Dr. C. M. Wood is right in the remarks about the recipes that are published in many of the papers. I have nine volumes of the American Agriculturist which were published in New York. It is humiliating to look at the directions given in them about the different diseases of stock. As samples I will give you one or two; one is to cure founder; it is to "place the horse's foot in boiling hot hog's lard." Another is to cure fistula; it is to "catch a warty toad and hold its back on the sore some time, and in about four weeks after it will get well." Can it be expected that our farmers should have very correct ideas under such instructions? "When the blind lead the blind, they fall in the ditch."

I was called to see a cow some time in August. One quarter of her bag was inflamed; she had a diarrhœa; the discharges consisted in part of mucous; she was off from her feed. I ordered that she be given a quart of slippery elm gruel, in which a half ounce of tincture of opium was put, and that the bag be showered,

and bathed, in diluted tincture of arnica. I called the next morning; she was better; there was not much improvement in the bag. I told the owner to continue the arnica and give her some epsom salts. I did not think it necessary to call the next day; I had other patients that needed my attention more. I called the next but one, and found the bag swollen all over enormously. I asked what had been done. The owner said that an old cow doctor had heard that his cow was sick, and had called on him the night before — *he did not send for him* — and said the cow had horn-distemper; that the mucous discharge came from her head, and that he could cure her; and they gave her some soap and milk, and bathed the bag in a liniament which they bought at a store; I saw the bottle; it was recommended for founder in the horse and rheumatism in man. Judging from the looks of the bag it was an irritant of no ordinary power, I left them out of humor. That cow yet lives but does not give milk; she was a fine milker before the doctor saved her life. I did not pity the owner, but that the cow should be made to suffer, was too bad.

There are other errors, I imagine, to which these are but drops in the bucket. I allude to theological ones. The popular one of today, I think is the cause of much misery instead of being the blessing it is claimed to be by most people. I have seen an honored father go down to the grave, from mental anxiety, which for years destroyed all his happiness. It commenced in one of those epidemics called a revival. If those messengers, sent as they claimed from God to teach man the way to escape the wrath of an angry Maker, could have showed as honest a heart as he, I think they would do better than I fear they could. Yet I may be wrong; my friends think I am; but I am honest in my belief. I wish the privilege of using my own reason in all things. I will not have a theology stuffed down my throat until I am convinced it is somewhere near the truth. I will not give a dose of medicine until I think I see reason for so doing.

Yours, &c.,

E. T. Wood.

A Horse Pumping Water.—One of our friends in Ridley, has two horses which go to the pump in his barn-yard daily almost, and pump water for their own use. One of these animals commenced this singular feat last summer, and since then, has learned his fellow to go through the same operation. It is really amusing to see one of these horses put his mouth to the nozzle of the pump, while the other is engaged in drawing water. The handle of the pump is of wood, and the end used by the horses has been greatly gnawed off. The above fact can be authenticated by numerous respectable persons who have witnessed the horses drawing water when their necessities required it.—*Del. Co. Rep.*

PARACENTESIS THORASIS.

THERE are probably over fifteen hundred persons, regular subscribers to this Journal, who have never paid any attention to the study of medicine, consequently they are not supposed to be able to comprehend the meaning of some of the "*jaw-breaking*" technicalities used by scientific men. In view of the claims which so large a proportion of patrons have on us, we have always, in our own compositions, avoided as much as possible the use of technical phrases, and we shall be glad to know that our co-workers are willing, (in view of instructing the masses,) to confine themselves, as much as possible, to the English language; or, if necessary, and at times it certainly is, to use Greek and latin idioms, they can be explained by the writer, so that the unprofessional reader may understand them.

At the head of this article occurs, *Paracentesis Thorasis;* this would be a hard lesson to set a *dull* school-boy, and perhaps some *bright* ones might be puzzled to solve the same; to a *Greek* scholar, however, the matter is as "*plain as a b c.*"

Definition: *Paracentesis* is derived from a Greek word which signifies to pierce through. *Thorasis* from *thorax*; the chest, thorax, also pertains to the above language; it means to leap, "because in the chest the heart leaps."

Paracentesis Thorasis therefore alludes to the operation of tapping to evacuate water from the cavity of the chest, in the disease known as hydrothorax, or dropsy of the chest. This operation has been performed by many eminent veterinary surgeons, and also by the Editor, with little success; the latter has satisfied himself that the operation is almost always performed too late, and we have long since thought that if any benefit is to be derived from the operation, it must be performed "*boldly*," in the early stage of effusion. The following article, which is copied from the *Buffalo Medical Journal*, sustains our views, and we earnestly recommend our veterinary brethren to carry out the suggestions of Dr. Bowdich:—

"*Paracentesis Thorasis.*—Dr. Bowdich warmly advocates a more fearless use of this operation, in ordinary cases of accumulation of fluid in the pleural cavity. His experience has certainly shown that the bug-bear of opening into the chest is one of those ideas which has been handed down to the terror of the surgeon, and delay of medical progress, until some bold man passes the Rubicon and proves the safety of an operation, hitherto avoided by practitioners.

"Dr. Bowdich says, through the pages of the Boston Medical Journal, "since April 17, 1850, I have operated upon sixty-two individuals, of both sexes and all ages. I have punctured one hundred and eleven times. I know of nothing in practical medicine which has afforded me more satisfaction than this simple operation."

The name of Dr. Bowdich is a sufficient guarantee for the *honesty* of this statement; and a practitioner can hardly be said to give humanity the benefit of all that science can do if he suffers his patient to carry quarts of liquid in his chest, subject to slow and uncertain action of absorption, when he can be relieved and the diagnosis made certain, by an operation which its distinguished advocate likens to venesection or vaccination. An operation so simple and so harmless, which procures such certain relief permanent or temporary, to a frequent and distressing malady, cannot be too strongly advocated in the periodical literature of the day. Let us make it another point in which we excel as *practitioners* our transatlantic brethren.

"It seems probable that another important benefit may be derived from the early employment of thoracentesis. If it be performed before the lung has lost its elasticity by long compression, would it not expand more nearly to its former volume, and the contraction of the thoracic parietes, with the consequent unsightly dropping of the shoulder be lessened if not prevented? The value of this surmise requires extended observation for its establishment; but if it be true that the rapid and early evacuation of the fluid has any effect upon the deformity which attends recovery from thoracic effusion, it will add something to the value of an operation, the advantages of which must soon be felt in every day practice."

KINDNESS TO ANIMALS.

We have much to say in this Department of the *Farmer*, upon the qualities, breeds, characteristics, and treatment of stock. In this article we wish to speak especially of kindness to domestic animals. Humanity alone would seem to urge a sufficient plea for the animals we rear. But this does not always secure to our domestic herds the kindly treatment they should have at our hands. Men of human feelings often abuse animals with whip and cudgel, with hunger, cold, and neglect. Working animals are often abused with overwork, galled with bad yokes and harness, with the oft repeated stroke of the lash, till they seem almost indifferent to the pain of blows and galls. A good old friend of ours who has been a successful farmer for nearly forty years, gives it as his opinion that men commit more sin in the sight of God in the abuse of animals than in all other ways put together. See the jaded horses, the stiffenened and worn out oxen, the poor scrawny cows, the starved hogs all over the country. Somebody has abused them. See the great whips, spurs, and other instruments of torture everywhere in use. With good feed and kind treatment these are never needed in working animals. They are simply instruments of torture. They are evidences of a prevailing inhumanity to animals. Many people whip animals as a matter of course, because they have always seen them whipped. If they drive

often, they go whip, whip, whipping along as though the poor creatures hides were already tanned into sole leather, and they do it more than half from habit. If they drive horses, they whip them brutally every time they commit any little offence, just as though they must. They do not mean to be inhuman, but they do it from a perverse habit. Now this whole whipping and cudgeling process is calculated to beat the life out of oxen and spoil the disposition of horses. I know of no more effectual way to spoil both horses and oxen than to whip them much. Every man who keeps working animals has to pay for the whipping in the extra amount of feed it requires to keep them, as well as in the bad work they do, and in the time lost and strength wasted in the process.

We would not discard the whip altogether: sometimes it is best to use it, and use it thoroughly; but not often—not as a daily habit. We know, from much experience with working animals, that the whip is seldom needed. The most of horses never need it. The colt may be broken to work better without the whip than with it. The great majority of the bad habits of horses are acquired by being whipped. The great majority of dull and disobedient oxen are made so by the crack and fall of the whip. The spirit of both horses and oxen are broken down by the whip. It is a positive injury to the strength and disposition of animals to whip them. The best whip is good feed. Work with animals must become a habit. Begin with a little; increase as the habit becomes fixed. First they must get used to the yoke and harness then get used to being guided; then used to work. The whole process to be well done must be the process of forming habits in the animals. Any attempt to hasten the end by whipping is only to thwart the object. Animals take on habits very readily if kindly treated. "The merciful man is merciful to his beast."—*Valley Farmer.*

A GOOD CHANCE FOR A VETERINARY SURGEON.

A correspondent located in Hollis, N. H., informs us that in the above vicinity there is a fine chance for a "thorough-going, practical veterinary surgeon; and in Nashua or Manchester a person of the right stamp can make a good living."

* * * If I should inform you of the horrible doses which some of the miserable quacks in this vicinity administer to a poor, suffering brute, whose owner, is fool enough to hearken to the advice of the "*barn-yard faculty*," I am sure that I should arouse your sympathies, and excite your ire against the one, in favor of the other.

Ed.—Your sympathies lean in the right direction, and are creditable to manhood. Send us some of the "*raw* material' recruits, and we will try to supply your wants.

The third session of the Veterinary Institute commences this month.

COD LIVER OIL.

A FIXED OIL OBTAINED FROM THE LIVER OF GADUS MORRHUA.—U. S.

WRITTEN BY PROF. COPEMAN, UTICA, N. Y.

History.—From remote times fish oils have been medicinally employed. Pliny tells us the Romans used oil from the dolphin both internally and externally; that seal and whale oils were likewise reputed remedies. As to cod liver oil, it appears to have been used from time immemorial, in Norway, Sweden, Holland and Germany, as a popular remedy, but not to have been prescribed by physicians before 1766, when it was used at the Manchester Infirmary, (England.) The remedy, however, was not at all extensively administered till 1841 when Dr. Burnett's work made its appearance. The publications of Drs. Williams, Thompson, Clarke and others, showing its efficacy, have since greatly contributed to establish its reputation and bring it into general use in Great Britain and the United States.

Preparation.—The best cod liver oil is prepared thus:—The fresh livers are cut in slices, packed in large tin vessels, and exposed to a temperature not exceeding 180° Fahr., till all the oil has drained from them; this is filtered and put into bottles, well secured from the action of air. Some chemists expose the oil to a low temperature, 50° Fahr., in order to congeal the bulk of the margarium before bottling for market. Of course an oil thus prepared remains fluid at a lower temperature than any other. Another method is as follows:—The livers are put into a boiler with water and heated until they are broken up into a pultacious mass which is thrown upon a strainer covering the top of a cask or tub. The liquid portion passes, and upon standing separates into two parts, the oil rising to the surface of the water. The oil is then drawn off, and having been again strained is prepared for the market.—*Wood.*

Pure cod liver oil has a pale yellow color, and a slightly nauseous oily taste. It consists of oleic acid 74 per cent.; marganic acid 12; glycerine 10. Loss, 2.50 peculiar *biliary* matters, with chlorine and traces bromine, iodine, phosphorus, sulphur, lime, magnesia, soda and iron.—*Dr. Jough.*

From analysis of the fatty acids of cod liver oil, it would appear that they are incidental with marganic and olive acids obtained from other fatty substances, the former having the composition C, 34; H, 33; O, 3; the latter, C, 44; H, 34; O, 4.

Actions and Uses.—There is much discrepancy in the accounts given of the effects of cod liver oil. When gelatin and resins were considered to form a considerable part of its composition, the good was ascribed to them, although when given by themselves no such

amelioration took place. When iodine was discovered to be a constituent, physicians immediately explained the therapuetic action to the drug by the presence of this principle, and got over the difficulty of the small amount contained in it by attributing homœopathic virtues to its peculiar mode of amelioration.

Many at the present day, although they do not ascribe all the therapeutic virtues to the iodine contained in it, yet regard this principle an an important element in its composition. Dr. Burnett considers that cod liver oil possesses the power of regulating the functions of nutrition, by acting as a stimulant to the lymphatic and capillary systems, and consequently improving the appetite and digestion, and thus the quality of the blood and the general nutrition of the body. Delcour, Pauk, Donnovan, and others, regard the action of cod liver oil as peculiar, and altogether independent of the contained iodine. In support of this view they state that cod liver oil has not unfrequently effected a cure where the preparations of iodine have entirely failed. Others again attempt to explain how the oil acts by looking upon it simply in the light of an oleaginous body. M. Ascherson believes that cod liver oil simply acts as an oil. Dr. Williams also makes the following remark: "The explanation which I have given of the chief salutary action of cod liver oil is not that it supplies fat where it is wanting, but that it supplies fat of a better kind more capable of being absorbed into and of pervading the structures of the body." Dr. Garrod's opinion is that cod liver oil acts rather as a peculiar oily substance than by any adventitious principle which it may contain. The little we know as to its influence on the blood may be thus summed up: Simon and Campbell made an analysis showing the changes which ensued in the blood after the administration of cod liver oil for a lengthened period of time. From their analysis it would appear thot cod liver oil possesses a considerable power of increasing the solids (250 in the 1000) of the blood, and this increase is found in that portion which is estimated as blood globules; that the fibrine is rather diminished. It was also found that the same changes were produced in the blood by the influence of cocoa nut oil. Dr. Thompson made trial of Neat's foot oil with the most favorable results, which have been confirmed by Radcliffe Hall. It would be desirable to try lard oil, which can be procured very cheap in many parts of this country.

Dr. Pollock has published in the *Lancet* (London), several experiments regarding the fattening action of cod liver oil on pigs, sheep and cattle. Twenty pigs, averaging in weight about 140 pounds, received two ounces of oil daily, with as much meal as they pleased; another lot were treated in exactly the same manner but got no oil. Those receiving the oil consumed less food, and when killed "weighed the heaviest," and made the most money in the market, the fat being

firmer and whiter." When the quantity of oil was increased to four ounces per day the fat became yellow and the flesh acquired a fishy taste. For small pigs an ounce daily was found the most economical quantity. An ounce of oil given daily to sheep induced a decided improvement in the quality both of fat and flesh; while cattle, receiving on an average about half a pint daily, ate less food and paid better than when treated in the usual way.

These practical experiments of the former go strongly to confirm the *theoretical* views of the ablest chemist of the present century—*Liebig*. They show conclusively that a certain quantity of oleaginous material is of service. 1st, in the saving of food. 2d, the speedy fattening of the animals. 3d, the better quality both of their fat and flesh. We have no doubt equally satisfactory results would be obtained from the use of cocoa nut, lard, linseed or any other fixed oil; and we feel confident if these facts were more generally known the lives of thousands of animals might be saved, and the condition of all improved by the daily admixture of a small quantity of oleaginous matter with their "scanty meal" during times of "scarcity of food."

For certain medicinal purposes, cod liver oil appears preferable to any other. It is now prescribed by many eminent veterinary practitioners in Europe. It is a valuable auxiliary in the treatment of nearly all cases of general debility, especially when convalesence is retarded by feebleness of digestion and loss of appetite. We have repeatedly given it in chronic diseases of the lungs with great benefit. It is said to be of great service in *heaves*. Cod liver, like other fixed oils, causes, when given in large doses, derangement of the bowels, and purgation.

EDITORIAL.

The above composition is an extract from Professor Copeman's lectures on Chemistry and Pharmacy, which he is expected to deliver before the students of the Boston Veterinary Institute at its third session, which commences on the fourth day of the present month. Our readers on perusing the same will discover that Prof. C. is well qualified to perform the duties assigned him.

A CONTRITE MAN.

MILWAUKIE, Wis., Oct. 12th, 1857.

MR. EDITOR,—*Dear Sir*:—I have perused with much pleasure and profit your articles on "Horn Ail." I plead guilty to the crime of having in former years bored the horns of neat stock when called upon to *doctor* them, but of late I have been convinced that the whole procedure is rotten to the core, and I never will do the like again. I am glad to find that instead of giving us members of the "*barn-yard faculty*," as you have facetiously termed us, a regular

drubbing, you very considerately reason with us; in so doing, I, for one, appreciate your forbearance.

I notice that your lectures in the Veterinary Institute are postponed to November. I am glad to know of the postponement, for the arrangement will accommodate us farmers. I shall try to attend and qualify myself for practice.

Your obedient, C. W.

If such an epistle as the above should happen to fall into the hands of a deacon of the hard-shell Baptist cast, prove as redolent of theologial contrition as it savors of veterinary delinquency, what an immense amount of capital might be made out of it. At the season of revival it would cause great rejoicing among the saints, and the "dry bones" would shake with the tremulous motion of an aspen leaf; but we, under the circumstances, are as cool as a cucumber, and instead of getting up an excitement on the occasion, merely invite "*Your obedient*" to give us a call. The Professors of the Institute will be glad to receive you into the "fold."

SHEEP RAISING.

In France and England Sheep are much more extensively raised than in the United States. In France, the chief object is the wool; in England, the mutton is regarded as the primary object. This being the fact, important improvements have been made in the English breed of sheep for the carcass. Robert Bakewell, after a long series of experiments, produced a breed known as Leicesters, that would mature in one-third of the time that the old breeds would. John Ellman improved a race suited to the chalk hills which surround the south of the Island. These hills are called Downs, upon which is grown a peculiar sweet, soft grass. These sheep are now known among us as South-Downs. Another race has been greatly improved, and are peculiarly adapted to the more cold, mountainous regions of North Britain, called Cheviots.

The Leicester sheep, with proper attention, will attain maturity of size in one year, with an average weight of one hundred pounds of mutton. The South Downs, which are confined to the shorter grass of the calcareous hills, will only arrive at an average weight of eighty pounds of meat in a year and a half. The Cheviots, in the colder regions of England and Scotland require two years to bring them to maturity.

There are thousands of acres of land in Virginia, Kentucky, Missouri and other States, of but little value for other purposes, that are admirably adapted to sheep raising, while there are tens of thousands of acres of prairie land unoccupied, that may be turned to advantage the same way. It is true that dogs and prairie wolves are some-

times troublesome to the farmer, but with a little care, sheep may be protected from wolves, and we hope the time will come when the Legislatures of the States will pass such laws in regard to worthless dogs as will remove all objections in this respect.

Beef is becoming an important item in this country, and with due care in the management of sheep, a more healthy substitute could be produced. For the week ending August 16, of the present year, there were sold in the New York city market, 4,332 beeves, besides nearly four times that number of veals, lambs and swine. For the week ending Aug. 26, the sale of beeves hardly reached so high a figure, but the consumption of smaller animals raise the aggregate number nearly equal to the previous week. With the exception of 240 head which New York furnished, the entire number are reported to have been supplied by Ohio, Indiana, Illinois, Kentucky and Texas. These were sold to the butchers at an average of 12 1-2 cents per lb. for the meat, and some were sold as high as 13 1-2 and 14 cents. Taking the data afforded by the New York Market, what must be the weekly consumption of beef in the United States? And at such prices how are the laboring classes to be sustained. Fifteen years ago, a common laborer in some of the cities in the West would earn $1 a day, and beef could be bought for 2 1-2 to 3 1-2 cents per lb. Now he may earn, perhaps $1,50 a day, while he must pay 12 cents per lb. for his beef. To rear beef cattle to maturity requires three years and upwards, while sheep may be made ready for the shambles in one third of the time.

An immense quantity of wool is now required by our American manufacturers. This wool should be supplied by our own farmers. A class of sheep that will afford a good carcass of mutton, and at the same time a good fleece of a moderate fineness, would render the business a profitable one, carried on to any extent under proper arrangements.

In order to extend still further encouragement to this branch of husbandry, we think it due from the American Congress to extend every encouragement possible by a protective tariff upon such a grade of wool.

It will be found that different breeds of sheep will be better for some localities than others. Any one acquainted with the origin and character of the different breeds of sheep and the country in which they were produced, can readily judge which will suit his particular region of country.

A breed known as the "Kentucky Sheep," produced by a series of judicious crosses, by Robert W. Scott, of Kentucky, seem to possess all the characteristics of a most hardy and valuable race, combining mutton of superior value, with a fleece of great length and weight, and of fair quality of fineness. We have been familiar with these sheep for several years, and from our own observations

their character seems to be firmly stamped and admirably adapted to this region of country. In a former number of the *Valley Farmer* we gave some account of the origin of this breed, and their value for both mutton and wool.—*Valley Farmer.*

INOCULATING COWS FOR THE DISTEMPER.

The following statement, made at a late meeting of the Brooklyn (N. Y.) Board of Health, by Alderman Schols, is almost too extraordinary for belief. A discussion arose on the subject of the nuisance created by distilleries and cow-stalls in that city, and Mr. S., after describing the amount of filth created by these establishments, observed that the keepers of the stables were in the habit of inoculating their cows during the prevalence of the *distemper.* He said, as stated in the N. Y. Times—"One of these may be milked in the morning, and the milk taken into the city and sold, and at noon the cow be *dead.* A great many head of cattle die in the course of a year. A cow drops down dead in her stall. She is immediately cut open. They die of a kind of consumption, *and no lungs are found after death.* The lungs are entirely rotted away, and in their place are lungs of *black matter.* This matter is taken from the dead cow, and with it the others—all that are new and fresh—are *inoculated.* The inoculation is performed in the tail, which is cut so that the black matter can be inserted. This is a process through which all the cows are made to go. Fresh cows, that have never been in such stables before, are inoculated as soon as they are brought in, before they can have a chance to die suddenly by distemper. As a consequence, the *tails rot off.* Hardly a cow is to be seen with a whole tail! The cows thus become thoroughly diseased. I have known a man to lose 40 cows in a year, who kept 25 at a time! As soon as a cow died it was replaced by another; and yet, in keeping only 25 cows, he lost 40 in a year!"—*Medical and Surgical Journal, Boston.*

PENNSYLVANIA MEDICAL UNIVERSITY.

In our advertising columns will be found the prospectus of the above University. Persons interested in the subject of medical education will perceive that the faculty are the *elite* of the profession. The Dean writes us as follows;— * * * "We have no repetition of Lectures. Each course furnishes the student with new matter, embracing medicine and all its collateral branches, or sciences. Our model is the University of Vienna. Our Faculty is the most comprehensive in this country. Our facilities for instruction are not surpassed by any other medical school. To students of limited means, our scholarships afford every facility for the attain-

ment of a thorough medical education, at a merely nominal cost. With the exception of expenses of Matriculation, Demonstrators tickets, and Graduation, the sons of physicians and clergymen receive free scholarships."

This University was incorporated by an act of the Legislature of Pennsylvania, in the year 1853, and has held eight sessions. It is in a flourishing condition, and is richly supplied with anatomical, physiological, and microscopical diagrams; mostly of German execution, and various other drawings and preparations executed by the Professor of Anatomy, illustrative of his branch. In fact, we are informed, that every department is amply provided with the necessary means of giving a thorough and complete course of medical instruction. The liberality of the Professors, in establishing *free* scholarships, should be responded to by men of wealth and influence, who can better afford to be liberal. Success to the Pennsylvania Medical University.

A CASE OF HYSTERIA TERMINATING FATALLY.

COMMUNICATED FOR THIS JOURNAL, BY JAS. H. YEO, V. S., BALDWINSVILLE, N. Y.

THE subject, a gray mare, fifteen years of age, the property of I. Wells, residing one mile from the village of Baldwinsville. March 28th, 1857, about eight o'clock, A. M., I was requested to attend upon the mare at stable. On my arrival, I found the mare down, prostrated, and apparently unable to rise, but, with assistance, was got on her feet; found the pulse about fifty per minute and strong in character; the respirations were not attended with any peculiarity, being about sixteen per minute, with slight abdominal respirations and a little hollowness of the flank, just enough to denote debility. On enquiring, was informed that the mare had been in the hands of the present owner since the time of colthood, and was never known to be sick, with the exception of a spavin on one leg. It came on about a year ago, and about three or four weeks since a travelling spavin doctor came along and said he would cure her, in proof of which he showed one that he said he had taken off, which to Mr. W. appeared to be just the thing. The man of spavins at once entered into a contract to insure a cure for ten dollars, one half pay "*down.*" The bargain was closed and he commenced the cure by blistering and sloughing off a piece two or three or four inches in circumference on the inside of the hock-joint, and to make sure work of it he applied his ointment* to the other leg for fear the mare might have one on that also. And at the time of my attendance on the mare, I found her laboring under lameness thus produced by the spavin doctor and horse killer, and was told my Mr.

* Corrosive sublimate and red oxide of mercury, equal parts.

W. that she had a stoppage of water and that she strained very much in attempting to void her urine, and the effort was evidently attended with a great deal of pain, and after all she was not able to evacuate only a small quantity at a time.

I ordered the animal to be warmly clothed, and the drink to have the chill taken off. Did not prescribe any medicine otherwise than a little cream of tartar to be given in her drink.

Two o'clock, P. M. I was requested by Mr. W. to go and see her again for she was getting very bad and was down, and that he could not get her up, and that she was in a great deal of pain. On my arrival I found her down on her left side struggling violently and trying to get up. On examination I found that the symptoms run thus: Pulse 70 and full, respirations 18 per minute; large patches of perspiration were present on various parts of the skin and upon the head and neck, and also the sides and hind parts, and quite hot. While down, I gave a gentle aperient, and with the assistance of three of us we got her on her feet. She could not stand for a while without being steadied by two of us. There appeared to be a loss of motor power in the hind limbs and quite flighty; and if I caused her to turn or move from one side to the other, she done so with a peculiar kind of unsteadiness; her limbs refused to act; it appeared as if she could not control them, and she staggered in all her movements and would sway slightly from side to side, and had a trembling kind of motion in the region of the femur and peculiar tremor not seen in any other parts of the body. The muscles of both hind quarters were excessively hard, but more especially those of the left quarter, and a degree of hardness which was surprising, and felt as though I was pressing upon a board. The muscles of the shoulders were also harder than they ought to be.

Treatment.—Gave her an aperient, and also gave anti-spasmodic medicines. In about one hour she became quite still and quiet, and partook of water acidulated with cream of tartar. I left her some anti-spasmodic medicines, with orders to give them providing the fidgity and cramping spells returned, and promised to see her in the morning. I left her eating hay and in appearance considerably improved.

Ten o'clock, P. M., I was called on by Mr. W., and was told that she was taken worse than she had been any of the time before, for what medicines I had left her did not have any effect, and requested me to go and see her again. When I arrived I found her down as before, struggling as if for life. in appearance more from fright than from pain. On examination found the pulse ninety per minute, and respirations greatly increased, heaving hard at the flank with excessive violence; had a peculiarly wild, strange look with the eyes, and was biting at every thing that came in her way, and biting at me with the utmost vengeance when pressing upon the gluteal muscles. And I also found considerable inflammation

in the sheath of the vagina, which was at this time of a dark red color, which afterwards turned to a dark purple, and respirations increasing, and struggling with renewed violence, and making several efforts to get upon her feet, but did not succeed on account of the loss of all motor power in the hind limbs and attended with violent spasms of the large muscles of the loins and hind quarters; and every now and then straining violently and parting with dark colored urine which consisted partly of blood.

Notwithstanding every means was used for her relief, these symptoms continued to increase in severity until two o'clock, A. M., when death closed the scene. On account of my ill health I did not make any post mortem examination.

PROFESSOR AGASSIZ ON CIVILIZATION UNDER WATER.

We take from Professor Agassiz's late report on fishes, the following description of an American fish:—"I have had ample opportunity to watch the *Pametis*, in the breeding season every spring, for the last eight years. At that time it approaches in pairs the shores of the pond in which it lives, and selects shallows, gravelly places, overgrown with *Potamogeton*, water-lilies, and other aquatic plants, in which it begins by clearing a space of about a foot in diameter, rooting out the plants, removing with violent jerks of its tail the larger pebbles, and leaving a clean spot of fine sand, in which it deposits its eggs, surrounded and overshadowed by a grove of verdure. In this inclosure one of the parents remains hovering over its brood and keeping at a distance all intruders. The office of watching over the progeny does not devolve exclusively upon either of the sexes, but the males and females watch alternately. The fierceness with which they dart at their enemies, and the anxiety with which they look out for every approaching danger, show that they are endowed with stronger instincts than have been known heretofore in any of their class. There foresight goes so far as to avoid the bait attached to any hook, however near it may be brought to them, and however lively and tempting it may be. However near to one another, the pair of one nest do not interfere with those of another; but, like good neighbors, they live peaceably together, passing over each others' domains when going out for food without making any disturbance. But whenever an unmated single fish makes its appearance among the nests, it is chased away like an intruding libertine and vagabond. The development of the egg is very rapid. In less than a week the young are hatched, and the parents soon cease to take any further care of them."—*Germantown Telegraph.*

PECULIARITIES IN HORSES.—SMALL FEET.

I am not surprised at any one being struck aghast at the bare mention of small feet as regards the horse; for with them is associated the idea of contracted heels, with the frequent accompaniments to such feet—corns, thrushes, chronic lameness, internal inflammation, navicular disease, and a long category of ills that feet are heirs to.

But here let me observe that persons are apt to be too apprehensive of mere *small* feet, for let me remark they may be very *sound* ones, nor at all indicative of, or the result of, any of the diseases I have mentioned, or of others equally to be dreaded. The mule and the ass have both peculiarly-formed feet. A horse being mule-footed conveys at once the idea of what his feet are like, nor to those conversant with such matters does it convey any idea causing a decided rejection. The Arab has usually mule-like feet; yet I should be inclined to say the Arabs were particularly sound as to feet. I am the more emboldened to state such opinion from the following circumstance.

Some years ago a friend of mine wrote to me requesting me to purchase a couple of race-horses to run in India. His letter ran thus: "You know as well as I can tell you the kind of horse to run with success chiefly against Arabs or horses bred here, where they run what your English racing ideas consider long distances, and that at high weights. All I tie you to is, they must have *feet of cast iron* to stand the ground we have to train on."

This, coming from a man accustomed to keep race-horses in England, I think, proves far more than any opinion or mine that Eastern horses, though owning small feet, must usually have sound ones; for I never heard that foot-lameness was prevalent with them.

Persons not judges of the matter may, perhaps, act judiciously in rejecting at once a horse with tendency to small feet; that is, if they intend to purchase on the somewhat precarious test of their own opinion and judgment. But the difference is so great between a small foot and a contracted one that I should consider a mere glance at either sufficient to satisfy the opinion of any man possessing any knowledge of the matter. Size has, in a general way, little to do with contracted feet; a horse may have a foot as big as a dinner-plate, and still have what we call a contracted foot; whereas, to further make use of the dinner service figuratively, he may have a foot as small as a butter boat (that is, supposing it to be the old-fashioned one of an oblong square), and have no tendency to a contracted foot—in such case he would be mule-footed, but with the heels showing open and wide. It is but rarely we find a horse with this foot contracted altogether, for in such case some internal chronic disease must have long existed that would have rendered the animal

more or less lame. But contracted *heels* are a disease of daily occurrence, and these a horse may have though his foot may be large to unsightliness. Persons are apt to imagine that the lameness incident to contracted feet arises from the wall of the foot pressing upon the sensible portion inside it. This eventually may possibly be the case; but, supposing it to be so, it is the internal parts of the foot withering from some disease that causes the crust of the heels to follow. Let the internal foot retain all its juices, vitality, and consequent size, to support the heels and keep them expanded, the heels would of themselves have no tendency to contract. It is not, therefore, the heels that are the offending party, but the internal part the unfortunate one.

Persons on seeing a horse with a narrow foot, whether contracted or not, are apt to set it down invariably as arising from the effects of bad shoeing. That it in very many cases arises from improper treatment of the foot is quite certain; but it is not the actual shoe we must blame for ill consequences, but the improper paring the foot in wrong places that produces the mischief when any arises. The shoe has little to do with the matter, that is, with narrow heels; for, be it remembered, the nails do not, or at least should not, come far enough to confine the heels. It may be said: "But the nails confine the sides of the foot." This I admit they do; but a horse's foot is not made of strong wood like a box, so that, if the sides are nailed tight, the extreme ends are equally confined; but, if that box was made of wood thin enough to be yielding, though you nailed the sides a certain way as firmly as you wish, the ends would be capable of expansion to a certain point. So I conceive it to be with the foot of the horse. The wall or crust is, to a certain degree, of a yielding substance, so that, although we may confine the toe and sides by nailing, the heel has room enough to expand if it has a tendency to do so, or, at all events, to retain its natural width, while the internal part of the foot is able to support it, and is not weakened by injudicious use of the drawing-knife, or, worse still, that of the buttress—a tool now nearly exploded from all but quiet country shoeing-forges, where the practice is chiefly among cart-horses.

Having, I hope, from what I have said, in some degree rescued my friends the shoeingsmiths from the indiscriminate blame thrown on them as accessories to every species of contracted feet, let us see if we cannot find some one or something more meriting our accusations. So long as men ride horses on made roads properly or improperly, or so long as they ride them in other situations, calling on them for exertion for which we have no reason to suppose nature ever intended them, so long will the animal be subject to diseases unknown to him in a state of nature; among these, those incidental to the feet is one, and I think I may say the most prevalent. In-

ternal diseases often do not lame perceptibly for a long time after their incipient existence. Horses will often become, to a certain degree, even absolutely lame, without its progress being deteced until it is, comparatively speaking, too late ; in all probability in, ternal fever in the foot has long existed, sapping and drying up it- vitality till, in figurative comparison, it is like the withered ke. of the nut, with this difference : the nut is surrounded by a hard- shell capable of retaining its original form without support from the inside, whereas the foot of the horse is not, and consequently follows the gradual diminution of the internal fabric.

Shoes have been made with a tendency to (as it were) force open or widen the heels ; such shoes, if they fulfilled the promises made for them (which, with the weight of a horse on them, I very much doubt) would be proper enough as an *adjunct ;* but the use of them was beginning " at the wrong end of the stick." First endeavor to remove or palliate the cause of contraction of the feet, namely, internal fever and consequent disease ; endeavor to restore vitality, and get, if possible, the wholesome juices of the foot to animate its dried and withered state ; then, indeed, an expanding shoe, in addition to our other efforts, may be of some use. But it must be clear that, supposing we could force the crust and heels back to their original formation, unless we could so cure the disease as to give the internal sensible part of the foot a disposition or capability of expanding also, the forcing open the heels would incurably lame the horse. Various have been the inventions to cure the dire disease of contracted feet ; various the tortures the animal has been put to with the same intent—all of which in a general way, have lamentably failed.

I may have occasion again to touch on this complaint, and the modes employed to endeavor to remedy it ; and in mentioning so far as I have its fatal effects, I have done so to show my readers that I am quite aware of the serious consequences of contracted feet, so am, perhaps, one of the last men to undertake anything bordering on such malady ; and, knowing what I do of the disease, though I do not object to a naturally small foot, I have as great a horror as man can have of a contracted one.

HARRY HIEOVER.

A VALUABLE COW.—A gentleman of this city, Edward Richardson, Esq., to whom the title of farmer would not strictly apply, although he resides on Dana Hill, in view of the rural district, has a very valuable cow, whose milk for the year ending July last, produced $175 89, independent of that used in the family. The receipts for the quarter ending with the first of October, instant, was $78 48. She has given twenty-two quarts per day, and now averages sixteen quarts per day. She is of Durham breed, and had a calf in June last.—*Cambridge Chronicle.*

ANSWERS TO CORRESPONDENTS.

N. R.—"*Softening of the Brain.*"—This may be the sequence of perverted nutrition—a sympathetic disease of digestive origin—yet the subject may inherit ancestral predisposition to the same. "Like begets like," hence you may infer that the *bad*, as well as the *good* qualities, or a predisposition to the same, are transmitted to the offspring. It is a well-known fact that certain breeds of cattle are celebrated for symmetrical proportions of body and limbs—breadth of chest, rotundity of carcase, possessing also other valuable qualities, consequently you may contend that such peculiarities are transmissible. Softening of the brain, however, may be the finale of an acute disease of that organ.

E. T. S.—*Navicularthritis* frequently terminates in adhesion and ulceration. We would advise you to have the horse neurotomised, since you have tried "*every thing else.*"

"*Student.*"—Your document, enclosing a fee of two dollars, is received. You may name the case hæmaturia. One or both of the kidneys may possibly be in a state of hypertrophy. The autopsy may possibly reveal discoloration and altered structure; the discoloration may vary from a black hue to a brown drab color, or mottled appearance, streaked with inflammatory appearances. In regard to the "*treatment*," we have written you by mail.

G. P.—You are mistaken, for if the liver be diseased, the *visible* surfaces will present a yellow tinge.

A. R.—This is contrary to our usual mode of doing business. We never "*insure a result.*" We will castrate the colt according to the most approved method. If he die, and you produce evidence that his death was occasioned by any negligence or want of skill on our part, we will most willingly pay all demands. The "*travelling*" castrators you allude to are about as responsible as the city pauper, who drew an order on the town pump and presented it to the directors of the almshouse (in which he had been rusticating) in payment for board and lodging. Your chances in view of getting "damages" from the tin-peddler *gelders* compare favorably with that just referred to.

"*Curb.*"—Mr. Finlay Dun, who is good authority, contends that *curb* is a strain of the calcaneo-cuboid, or posterior straight ligament of the hock, causing pain and swelling on the posterior part of the hock. He contends that "horses most subject to it are those in which the hock is straight and the os calcis short and inclining forwards." This peculiar conformation goes to show that predisposition to curb is in some cases hereditary.

"*Trotter.*"—Your "*mile course*" may, on measurement, fall short. 2.24½ is the best time on record. Beat this, and your horse is worth all, and more, than you ask for him.

H. P.—The milking qualities of a *poor* cow cannot be improved by spaying. Neither is it good policy to spay a cow disposed to take on fat.

E. F. G.—Yes. Laminitis (inflammation of the laminæ of the feet) may follow the exhibition of "*active purgative agents.*" A case of this kind is reported by Surgeon Carteledge in the May No. of the "Veterinarian" for 1855.

"*Student, Iowa.*"—*Emphysema of the Lungs.*—There are two varieties of *emphysema.* One consists of simple dilatation of the air-cells; the other is more formidable, and arises from rupture of *septa* and air-passages directly into the inter-loblular areolar tissue. The "*causes*" are, derangement of the mechanism of respiration, collapse or permanent atrophy of a portion of the lungs. In such cases the air is brought by inspiration, to penetrate, with herculean force, the remaining sound portion of the lung.

"*Trainer.*"—You are a wicked sinner. If the colt was "sick as blazes," and you took a "din-tipper to the shotecary-pop and got four ounces of pollygolic" and gave it to him you certainly hastened his death; but probably you are only aiming to create a smile, and appear funny or comical.

The following singular facts are disclosed in the recent efforts made to introduce Beef Cattle from Venezuela into the Atlantic States, in order to break up the monopoly enjoyed by drovers and butchers. The Evansville (Indiana) Journal, of the 26th ult., says:

The cattle raised upon the savannas of Venezuela never eat hay, nor can they be made to eat it by any degree of hunger; they are frightened at the sight of an ear of corn, nor will they drink water except from a "babbling brook." They will die of thirst and starvation before they will touch either on board a vessel. The attempts to overcome these difficulties with the wild cattle in the bordering States of Mexico and in Texas have proven that they are not transportable in any voyages longer than they can be kept without food or water. The cattle brought from Texas to New Orleans neither drink nor eat from the time they are put on board the ship till they are landed; and in a passage of thirty-six hours from Matagorda to the Mississippi, large numbers die. The idea of bringing the wild cattle of Venezuela to New York alive, is one of the wildest projects ever debated by sensible men, The pastoral regions of our own country, between the Mississipi and the Rio Grande, are the regions from which we must draw our beef and mutton for the future.

MASSACHUSETTS STATE FAIR.

The State Fair, has just terminated, and probably all those who attended it were highly pleased. It proved to be a capital antidote against long faces, which is a prevailing epidemic now raging in State Street; and if the weather had not been so chilly, there would have been a much larger attendance. A full and correct report of the whole proceedings has appeared in our daily papers, which, by the by, were ably represented by an efficient corps of reporters. There were some hard working men on the grounds, who were constantly engaged in getting up some amusement for the benefit of the assembled masses; foremost among the master spirits, we noticed Josiah Crosby, Dr. Charles M. Wood, H. K. Oliver, his son; and several other gentlemen, w ose opportune arrangements, created a lively interest and contributed much towards the success of the undertaking. Some of the "four-minute men"—the old fogies—must have felt very blue, on witnessing the lively interest created by the trials of speed, commonly denominated "horse racing." They have probably received a lesson which may be of some benefit to them on like occasions.

We are a great lover of horses, especially thorough bred ones, and that part of the exhibition which pleased us most was the exhibition and performances of the "Thorough Bred," running horses, and being a member of the committee appointed to report on them we annex the following remarks, copied from the *Boston Journal*, and our report.

THE EXHIBITION OF BLOOD STOCK.

He who has carefully studied the pages of standard works on the breeding and improvement of the horse, or who has taken even the ordinary means of acquiring information on the subject, whether by actual experience or in a more casual and superficial manner, must be convinced that the thorough-bred horse, whether of English or American origin, is as much superior to the ordinary horse in every respect, as gold bullion is more valuable than unsigned bank notes. The superiority of the blood horse is admitted by all. The axiom that "blood will tell" is exemplified daily, and is commonly accepted as fully and accurately describing the difference that exists between the powerful thorough-bred and the cold sluggish blood of other horses. If an argument were needed to prove the truth of this statement, this is not the place for it, and with the remark that no horse exhibition ever held in New England has been so rich in thorough-bred stock as the present, and that never has the public shown more interest in this class of stock than at the present time, we proceed to a somewhat minute description of the blood stock on exhibition.—*See Boston Journal, Oct.* 24.

REPORT OF THE COMMITTEE.

The Committee appointed to report on "thorough-bred stallions and mares" recommend that the first premium of $40 be awarded to thorough-bred stallion "Balrownie," owned by Mr. Quincy A. Shaw, of Boston.

Also that the second premium of $30 be awarded to thorough-bred stallion "Sultan," owned by Messrs. Phillips and Hammond of Brookline, and that the third premium of $20 be awarded to thorough-bred stallion "Trustee, Jr.," owned by J. J. Merrill and Co., of Roxbury.

The Committee made honorable mention of stallion "Omar Pacha," but as no authentic pedigree was furnished, the horse was not considered in competition for premium. This horse is owned by Capt. Codman of Dorchester.

On thorough-bred mares the Committee recommend the first premium of $40 be awarded to through-bred mare "Comfort," owned by Mr. Quincy A. Shaw, of Boston. They examined with much gratification two imported mares named "Crinoline," and "Colleen Dhas." They are well bred and valuable animals, and were entitled to premiums; but as no pedigrees were produced, the awards could not be made. A gratuity, however, is recommended. These horses are owned by Samuel Hammond, of Boston.

Your Committee are satisfied that the importation of valuable thorough-bred horses into this country is calculated to be of immense benefit; and those enterprising gentlemen who are engaged in this very desirable task of improvement are entitled to the thanks and patronage of the whole community.

The report was respectfully submitted, and signed by Messrs. Dadd, Thayer, Denny, and Smith.

The keeper of a livery stable on Cape Cod had a habit of cautioning his patrons against rapid driving. One day, one of them came for a team to join a funeral possession, and on handing him the reins, our friend, as usual, mechanically observed, "Dont drive fast" "Look here, old fellow," exclaimed his customer, "I'm bound to keep up with the procession, if I kill the horse."

At the Springfield Horse Show, Mr. Brown, of New York, appeared on the track, with a team of four gray horses, whose united ages amounted to 97 years, one of them being 29. This team can make a mile in 2.49 together, although one of the horses is blind.

In Baltimore a bull-terrier dog, belonging to a colored man, seized his master's horse by the throat, and held his grasp so firmly that he had to be killed by being struck on the head with an axe, all efforts to release him otherwise proving unavailing. The jugular vein of the horse was completely severed, and he died immediately.

MICELLANEOUS,

SALE OF VERMONT HORSES,—Y. Nearing of Orwell, Vt. sold last month his black Hawk stallion "Addison" to Messrs. Pierce and Paine of Belville, Illinois, for $5000. He is a noble horse, 16 hands high, and weighs 1200 lbs.

Mr. F. C. Gilman of Montpelier, Vt. has sold a fine Stallion for $1500 to parties who will take him to Cuba.

Mr. Tillotson of Orford, N. H. recently purchased a three years old stallion colt in Danville, Vt., for $1000.

Five cattle, among a herd of some twenty, were struck by lightning near West View, Augusta county., Va., on Saturday week, and instantly killed The cattle were on the summit of a high and bare hill, remote from timber of any kind. They were found lying dead, scattered in various directions in a circumference of some forty feet.

DONT SHOOT THE BIRDS.

Don't shoot the birds, the warbling birds,
That cheer you with their song,
That fill the air with melodies,
A bright and happy throng!
That carol forth their native lays,
From shrub and lofty limb,
And gaily sing their tuneful strains
From morn till evening dim.

Don't shoot the birds, the harmless birds,
That come with buds and flowers,
That soothe the farmers weary toil
Through summers sultry hours;
That build their nests and brood their young
Beside your cottage door,
And linger near from early spring
Till autumn's golden store.

Don't shoot the birds the sportive birds,
That flit o'er hill and plain,
That leave when chilling winter comes,
But soon return again;
That warble out their hymns of praise
With many a gleeful voice,
Which calms the daily cares of life
And bids the heart rejoice. —*Laurensville Herald.*

PRIORESS A WINNER.—The race for the great Czariwitch Handicap, at New Market, resulted in the triumph of Mr. Ten Broek. 34 horses ran, and on the first attempt there was a dead heat between Prioress. Em Hahn and Queen Bess; the deciding race between three, was won cleverly by Prioress by a length and a half. The success of the American horse was greeted with great cheering, and Prioress became first favorite in the betting for the Cambridgeshire stakes to be run for at New Market, on the 27th of October. The stakes exceed £2000 sterliug.

The American horse Lecompt is dead. Pryor has been stricken from his engagements for the year.

EDITOR'S DRAWER.

We have received from Messrs. Fowler & Wells the Second number of the "Illustrated Family Gymnasium," containing the most approved methods of applying gymnastic, calisthenic, kinesipathic, and vocal exercises to the development of the bodily organs, the invigoration of their functions, the preservation of health, and the cure of diseases and deformities: illustrated by numerous engravings. In a preceding number, we noticed the *first* part of this valuable work, and all we have to say of the *second* is that it is equally interesting and reliable. The whole work can be obtained at the low price of $1,25.

We are also indebted to Messrs. Fowler & Wells for copies of "The Illustrated Phrenological Almanac," and "The American Water Cure Almanac." Price six cents a copy. These almanacs are really *readable*, interesting, and very *superior* to those which were formerly got up for the special benefit and perusal of "*the old-fashioned folks*," *weather-wise maiden aunts*, and moonshine farmers.

PAMPHLETS RECEIVED.—"Announcement and Catalogue of the Pennsylvania Medical University, of Philadelphia, for the Fall Course, 1857, and the Spring Course, 1858." From the Dean of the Faculty, J. M. Macomber, M. D.

"*How to Get a Patent*, containing full instructions to inventors, and a synopsis of Patent Law." Published by Fowler & Wells.

"*The Lawton*, or New Rochelle Blackberry: its origin, history characteristics and culture." Fourth edition. Fowler & Wells, publishers. Price six cents per copy.

To Messrs Phillips, Sampson & Co., we are indebted for vols. 1 and 2 of Frank Forester's "Horse and Horsmanship of the United States and British Provinces of North America." By Henry William Herbert, Author of "Frank Forester's Field Sports," "Fish and Fishing," "The complete manual for young sportsmen," &c., &c. This magnificent work—a valuable contribution to the collateral branches of our art—came too late for review in our November issue, but shall receive attention next month. Those who are desirous of procuring it must send their orders to Messrs. Phillips Sampson & Co., or to J. B. Bettis, general agent. Persons desirous of patronising the agent, may address their orders to him through the Editor or Publisher of this Journal. The price of the two volumes is ten dollars.

NOTICE TO SUBSCRIBERS.

The publisher informs us that there are several hundred subscribers, that have failed to pay for the current volume of this Journal, and a notice to that effect has been forwarded to delinquents. Now we do hope that all demands will be settled up forthwith.

THE AMERICAN

Veterinary Journal.

DEVOTED TO THE DIFFUSION OF VETERINARY KNOWLEDGE.

Edited by GEORGE H. DADD, Veterinary Surgeon.

Published by S. N. THOMPSON & Co., 97 Union Street.

PRICE, ONE DOLLAR PER ANNUM.

VOL. II. BOSTON, MASS., DECEMBER, 1857. NO. 12.

AN INTRODUCTORY LECTURE,

Delivered on the occasion of the Third Commencement of the Boston Veterinary Institute.

BY GEORGE H. DADD, DEAN OF THE FACULTY.

Gentlemen :—Through the courtesy of my colleagues I have the pleasure of tendering to you, who have honored us with your presence on this occasion, a hearty welcome to the exercises commemorative of the third session of the "Boston, Veterinary Institute," and permit me to remark, that I am not here of my own accord to gather laurels for myself, but to perform a duty assigned me by my associates, either of whom, could, probably, have discharged that duty more satisfactory to you than I shall be able to do; yet I trust that my effort, which has been prepared amidst the avocations of professional life, which afford me little time for composition, will be appreciated, and command if not your approbation, a mitigation of your criticism. For I feel a deep interest in the prosperity and elevation of veterinary science; a prosperity in which I know many of you participate, and an elevation which all of you may be, more or less, instrumental in securing. If, therefore, I fail to interest you on this occasion, the fault is on my side, and not on that of the cause which I profess to advocate.

It is well known that the custom of delivering what are termed "commencement introductories, has prevailed from the time when veterinary colleges and schools were first inaugurated up to the present period, so that in the Old World, where such Institutions flourish, every subject of importance to a professional man, has been brought under contribution, and therefore it is very difficult to select a new theme. Yet according to ancient useage, "introductories" admit of considerable latitude, therefore I shall do as

more learned men than myself have often done, and make the remarks I am about to offer somewhat discursive. It was suggested to me some time ago, by a friend, that a history of veterinary science would probably be an appropriate subject on this occasion, and so I myself thought, at that time, but recollecting that the subject was intelligently handled, at our first session, by Dr. D. D. Slade, and published in the "Veterinary Journal," I have thought it best to choose another text. Therefore I propose to direct your attention to the *value and importance of veterinary science to the husbandmen of this country; and shall endeavor to show the necessity that now exists for the services of educated surgeons*, for it is well known, that in this country, these subjects have not received that attention which their importance demands. Americans rank high in the estimation of the scientific world for their genius and industry in the work of improvement, and much astonishment is manifested by the older heads of Europe on witnessing the remarkable progress made in the arts and sciences, by the American people. See what has occurred in the art of Printing. Electrotyping, &c., in the way of improvement! Now, the eloquence of the great literary magicians of the New World, the honored graduates of free institutions and free schools, no sooner falls from their lips than the Phonographist transfers it to paper, the nimble fingers of the *compositor*, puts it into "*form*"; next the galvanic battery deposits on the face of the soft type a durable coating of copper, and "Hoe's Press," sends off impressions with almost magical rapidity. No less surprising is the wonderful feats performed by American Mechanics in the construction of fast yachts and steamers, which occasionally pluck a laurel from the brow of the "Mistress of the seas," and old "Uncle John" gives us due credit for perfecting a race of fast trotters, and no doubt considers us, A. No. 1, in stocking Uncle Sam's farm with some of the finest specimens of *fast* men and women to be found in the world. Improvements in every department of science and art are constantly treading on the heels of improvement: yet in regard to the science of Veterinary medicine and surgery, America is almost the last among civilized nations, to put her shoulder to the wheel. What can be the reason? Her youth may be offered as a plea of excuse; the daughter of the old world hath not yet arrived at years of discretion; she is yet in her teens and her sons have borne the heat and burthen of the day in establishing their liberty, in founding cities, extending their commerce, and in taming their wild face of nature, by uprooting the giant oak, and clearing away the forest, so that the husbandman might follow on with his plough and harrow, and next impregnate fruitful mother earth with germs of fructification which in the day of the harvest thereof, should be gathered and garnered for the benefit of himself and his flocks and herds.

And long ere the woodman's axe ceases to vibrate its clear notes in the ears of the new settlers, a giant enterprise is in contemplation; space or distance must be annihilated; the iron horse with his lungs of steel, and breath of steam, must have his highway and byway, and the result is, that the choice spirits of progression have been engaged in dotting the surface of a great portion of the United States territory, with a magnificent net-work of Railway, and Telegraph wires; and various other enterprises to which I

need not call your attention, have occupied the American mind. In the prosecution of these objects so essential as they have proved, in the economy of an infant Republic, I am not surprised that our science should fail to receive attention, for until within a few years the cultivation of superior animals, was a matter of secondary importance; formerly the ruthless hunter, armed with his messenger of death, his Rifle, had not yet despoiled the preserves of nature which abounded with a rich and tempting variety of flesh and fowl that could be had with little trouble in securing it; all kinds of animals such as they were could be obtained at a very low figure, so low that if one of them were taken sick it was thought more economical to destroy than attempt to cure; under these and other circumstances that I might name, it is not surprising that young America should be in the rear of the veterinary squadrons of the old world, yet notwithstanding the seeming indifference of the former, they occupy as high a platform in a few of the States, as that prevailing a little over fifty years ago, when the Apostle of mercy, St. Bel, landed on British soil. I offer these preliminary remarks in view of *encouraging* gentlemen present, and elsewhere, who have been, and are now, actively engaged in building up the science of veterinary medicine and surgery in this country. They have now surmounted almost all the obstacles which stood as a barrier against advancement, and now success is sure to crown their labors, for the choice spirits of this progressive age are rallying around our standard, and we have men to do battle, who, in the language of a departed Naval hero—"never surrender."

This science, and its collateral branches, which are taught in this Institution are as valuable and charitable to the inferior orders of creation, for the purpose of ministering to their physical wants, relieving their aches and pains, and of prolonging their lives, as that practised on the more noble of created life; and testimony can be produced tending to show that in our ranks can be found good Samaritans; who are always ready and willing, whether on the highway or the by-way, to minister to the wants of *nature's* menials; an act as acceptable to nature's God, and as creditable to manhood as if one of us were concerned; and should we estimate this science in exact ratio to the value and usefulness of the legion host of domestic animals that have been reared in this country, and those, which without regard to cost, have been procured from England, France, and Spain, to whose welfare it directly contributes, you will readily perceive that it is of immense value and is entitled to the consideration and support of a nation of husbandmen. Now in allusion to this science, I wish it to be distinctly understood that it has no fellowship with that, hit or miss, kill or cure, system so prevalent in some parts of the country, which a great majority of our husbandmen, by sad experience, have had as much reason to deplore as legitimate practitioners have to lament. Science is one thing, ignorance is another, between the two there is no affinity, but a direct opposition. The science of veterinary medicine, can never be acquired by barn-yard instruction, nor stable eloquence, it never comes to us through the medium of our mother's milk, nor is it the result of hereditary idiosyncrasies as some people seem to suppose. It never comes to us while we are engaged in currying a horse, putting on his harness, or training him for a two-forty gait. It never comes to us while we are asleep, or dreaming. It is the property of the wide

awake, industrious and devoted student, to all others the radiant light of its fundamental principles is a perfect blank.

In order to acquire the necessary tact, skill and experience, for the practice of our art, some of the shining lights—the early disciples, have spent the May-day of their existence in solving its problems, and when the day of reckoning came—and the sands of life were fast running out, they declared, with a modesty indicative of true genius, that they were about to leave the world having an unfinished education. Such testimony goes to show that there is no *Republican*, nor Royal road to Veterinary knowledge. In fact, after a man has perseveringly pursued the routine of our most approved collegiate veterinary educational tactics; he will find that in the rough and tumble of practice he may be "*found wanting.*" Let us contemplate for a moment the superior advantages which human practitioners have overour craftsmen; both as regards their scientific qualifications, and the superior means at command for ascertaining the character, location, and intensity of the various maladies, afflicting the human race, and you will probably all agree with me that the education of a Veterinary Surgeon, must be of a superior character. For example, the practitioner of human medicine, if he has been an industrious and faithful student, enters upon the active duties of his profession, having acquired a valuable fund of knowledge, of Anatomy, Physiology, Pathology, and other necessary branches, and having disciplined his mind in the *regular* school, and in that of experience, he is expected to be able to rejoice in the possession of a well trained mind, which enables him to understand and interpret, the physiological laws which preserve health and life in the constitution of organized beings; also, to comprehend the why and wherefore of disease: to institute sanitary and other regulations, and select suitable medicinal preparations to meet the various indications of each and every form of disease; and when a *man* becomes sick and the Doctor is called upon to exercise his calling he derives valuable aid, in view of making a correct diagnosis, from the patient and his friends, each can be questioned and their responses throw considerable light on the history and nature of the malady. Now as regards the latter advantages, they have no parallel with us; our patients are deprived of the powers of speech, and we can only judge of the state of their health, and nature of their maladies by signs revealed or elicited through physical exploration; we have to encounter other difficulties of no less magnitude, for example, our patients are often located in situations unfit for a well animal to reside in, and they do not always receive that attention from their owners which the urgency of their case demands. In fact the good nursing, kind attention, change of air, &c., which often proves of so much value in the restoration from sickness of one of our race, is often denied to the inferior animal; and other considerations too numerous to mention at the present time, tend to show the advantages which our brethren of the sister science, have over us, and how necessary and important it is that a practitioner of our art, should be thorough master of his profession. It is a fact, however, that a great majority of our husbandmen, have not hitherto realized that the superstructure of Veterinary science rests on the same intelligent basis as that of human medicine; but such, as I am endeavoring to show, is the case. In the language of the lamented Percivall, we are assured that, "whether we prescribe for a man,

horse, or any animal; the laws of the animal economy are the same; all require the same treatment," that is to say, the propositions of restoration are all founded on the same intelligent basis.

The importance therefore of educating men for the scientific practice of our noble calling, is self-evident and is further illustrated in the daily experience of those persons whom as a matter of necessity are obliged to do the best they can for the sick and dying of their flocks and herds, having no knowledge of those advantages which a thorough course of training affords; they necessarily feel that they are groping in darkness, and when a ray of light does flit across their path, it only serves to make them better acquainted with their own want of skill. Persons thus circumstanced, unable to procure the services of a veterinary surgeon, in consequence of a scarcity of the genuine material, are often compelled to assume the responsibilities of a Medical adviser, and no doubt they prescribe with good intention and honesty of purpose, but disease and death hath the vantage of them for they know not the modes of warfare, nor are they acquainted with means best calculated to insure a favorable issue, and I think such persons will hail as a great blessing any, and every, attempt made for the purpose of diffusing a knowledge of veterinary science. For as I have just shown there is greater need for scientific qualification on the part of those who propose to practice on brutes, than in the case of a practitioner of human medicine; and, if a certain course of study and qualification, obtained under the auspices of competent teachers at college, or elsewhere, be essentially necessary in the one case, they surely cannot be dispensed with in the other. Now it is well known that, prior to the introduction of a rational system of veterinary medicine and literature in the mother country, millions of domestic animals were annually sacrificed at the shrine of ignorance; but science, which substitutes rational principles in the place of ignorance, came to the rescue, and now the disciples of St. Bel, Coleman, and their co-workers and kindred spirits can, by aid of their vast materia medica; their anæsthetic agents; their scalpel and modern surgical instruments; accomplish unheard of wonders. The Samaritans of the order of St. Bel and Coleman have solved the problems on which the fundamental principles of physiology and pathology are founded, they have dispelled the awful cloud of ignorance which hath lingered over the Pharaotic hosts pervading the red sea of ignorance and empiricism! they have been successful in illuminating the dense and dark spots that have existed in horse and cattle practice from the advent of the ancients, the Egyptians, Chaldeans, Babylonians and Arabians, up to that period which introduced a new era: they have rendered fertile the vast wilderness of guess work and cruelty occupied by the uneducated, unqualified, and unregenerated "cow-leach," and "horse doctor," and have converted it into a Paradise of fruitful promise for those that shall come after, and be willing to submit to the process of scientific veterinary baptism, in the intellectual pool which operates as an impassable barrier, between empiricism and science. They have done more than this; they have often robbed death of its victim, and have succeeded in blunting the keen edge of many an epizootic sword; so as to arrest its awful chaotic course; they have in fact, stolen a march on the grim monarch of epizootic destiny; their weapons are such as were wielded by *Jenner*, the benefactor of the descendants of our common parents. Our

efforts may not always be so successful, but as our veterinary fathers have accomplished *much*, the sons, who are often smarter men than their fathers, may do more. The field of enterprise is, in this country, composed of virgin soil, and the "*bridegroom of promise*" hath not yet donned the complete mantle of fertility. So that there is a splendid chance for our graduates to do good and crown themselves with the "laurel of fame." The husbandmen of this *country*, have also suffered immense pecuniary losses by the death of valuable animals, and since the time of the landing of the pilgrims on Plymouth Rock, up to the present moment, death hath run riot in the "*camping* ground" of horses and cattle, and the people have not been informed of the why nor wherefore. The legion host of "itinerant practitioners," which necessity and circumstances have created, remain remarkable silent and non-committal; and probably this is the best course they can pursue, for if "ignorance is bliss" and it pays well, it would be decidedly unbusiness-like to *assume* wisdom, which may not pay so well. There never was a period in the history of the United States, when the services of educated Veterinary Surgeons, were so much needed as at the present time; for the live stock, of *young America*, do not enjoy immunity from those pestiferous epizootic maladies, which operated as a withering simoon, on the enterprise of British breeders and raisers of live stock; for example, the people of the Western States complain, that a disease, occasionally, makes its appearance among their stock, to which they have applied the name of, "trembles," or "Milk Sickness," and it hath so scourged both the superior and inferior orders of creation, that the former have often abandoned the old *homestead* and sacrificed everything in view of seeking a location where there was some prospect of enjoying immunity from the pestilental scourge. And a contagious, or infectious disease is now prevailing among swine; it hath made sad havoc among them; destroying several hundred thousands, in various sections of the United States, and up to the present moment we are all in the dark, regarding its real character. Contagious typhus hath prevailed, and puerpural fever hath carried off thousands of our best cows of both *native* and *imported*, breeds. Apoplexy, softening of the brain, and *Hydrocephalus* are just as prevalent here as in England. Miscarriage or abortion, is fearfully on the increase. Diseases of climatic origin are more rife than in England; this is to be attributed to the diversity in the temperature of our vast territory, and the various faulty modes of management. In the year 1856, an influenza made its appearance, which destroyed many thousands of valuable horses. In fact, to shorten a lengthy story, there is scarcely any disease known to the Veterinarians of the *old* world that hath not prevailed in the *new*. The mere mention ot these matters should at once arouse stock raisers to a sense of their duties to themselves, and their domestic animals. We must have educated Veterinary Surgeons for the treatment of the diseases of live stock. It is a matter of *national* policy, a work of *benevolence* and should we take a business view of the affair, it is a *cent and dollar* enterprise that will surely pay well. As a *national* affair, if it be good policy, (and no one has any doubts on the subject) to have "*none but* Americans to rule America," it is an equally wise one which contemplates, the endowment of veterinary schools and colleges, where the young men of America can acquire a Republican veterinary education, and thus in times to come the

services of highly educated Americans can be secured in view of treating the diseases incidental to American stock. It is a great mistake to suppose that, "veterinary science can only flourish under the patronage of Royalty," as I have already stated, our country is just about entering on manhood, the people have been so absorbed in promoting its growth and developing its resources, that there has been but little chance for great scientific achievement, in this direction, yet, within the few past years, some of the most learned of our profession; educated under the auspices of Royalty, have been amazed at the contributions to science furnished by the few devoted men we have in this country. As a *national* affair, therefore it should be the pride of every American to put his shoulder to the wheel for the purpose of sustaining an enterprise, that shall ultimately redound to the honor and glory of the nation.

It needs no argument to show that the enterprise, in which we are engaged, is one of ministering benevolence. I shall not insult your intelligences, by offering an argument on this point. Benevolence is the birth-right of manhood, and if every individual acts according to the impulses of natural instinct, he must have a heart to feel another's woes. The truly good man, and the physician believe, that "in that day when crime is sentenced, the *cruel* heart shall not go uncondemned, because no neglected nor tortured brute stands there accusing," but he acts accordingly.

Viewing the subject in a *pecuniary* light, the necessity for establishing Veterinary Institutions of learning becomes *more* apparent. From reliable statistics I am justified in stating that the husbandmen of these United States rejoice in the ownership of 5,000,000 of horses, 15,000,000 of neat cattle 25,000,000 of sheep, 27,000,000 of swine, and half a million of asses and mules. At a very low estimate we may reckon them worth 600,000,000 dollars; these are items which not only afford a good indication of the wealth and prosperity of this country, but they serve to show that such a vast amount of capital must not be intrusted to the overwhelming waves of empiricism and ignorance. Now if a community of merchants had this enormous sum invested in commercial adventure, they would calculate on, and perhaps realize their accustomed profits, which, I am informed, range from 25 to 45 per cent. But I would ask, does the American dealer, breeder, and importer of live stock receive corresponding profits on their equine and bovine investments? I propound the question to them as a body of men engaged in a *common* adventure, for it is a notorious fact that a few of the most *shrewd* have succeeded in securing ample fortunes, but the great majority have acknowledged that their enterprise was a failure. Now there is no earthly reason why six hundred millions of dollars invested in live stock should not return as good dividends as when invested in any other description of property. The reason why it does *not* pay, is because the principles of our art, of breeding, rearing and management are not generally understood. There is too little physiological light abroad; hence, in the study of the "science of life," which is a collateral branch of our art, there appears to be a chance to *make* such investments pay. I would advise those persons who have been unfortunate in live stock investments to enquire of the physiologist, he who reads the book of nature as it is written in the life and constitution of organized beings, of the why and

wherefore of their many failures. Or should more authoritative evidence be required. I refer them to the sons of Esculapius, the doctors of human medicine, and they will inform you that stunted growth, malformation, and fashionable diseases are the penalties which the God of nature imposes on those who are fool-hardy enough to venture beyond the bounds of rational physiology. Ask them for proofs and they will direct your attention to those hereditary diseases so notoriously prevalent among the nobles of Spain and Portugal, and to the countless host of idiots which crowd the immense asylums to be found in all parts of the civilized world. Then contrast the stalwart frames and iron constitutions of our departed ancestors, who to a certain extent have enjoyed immunity from the numerous afflictions which necessarily result from our artificial modes of life, with the race of our day and generation; and it would seem to appear that we, the men of these fast and degenerate times, are nothing more than homœpathic representations of the great and robust originals.

Now the diseases so prevalent among the live stock of this country, hereditary, acquired and accidental, owe their origin to the same causes which produce like results among members of the human family. The practitioners of our art can reveal these causes, and thus light up the dark spots which now exist.

The science which we are now laboring to render popular is vast and boundless as the ocean, and although it has been explored by many distinguished scholars, it is capable of unfolding new truths and sublimities, and when the united intellect of this intelligent nation shall be brought to bear upon it, it will advance with a rapidity truly astonishing. What the American people have accomplished during the few past years in rendering science popular, is proof positive of what shall occur when the current of investigation is directed to the science of Veterinary Medicine and Physiology.

I am aware that many intelligent and influential men in this country are deterred from giving us countenance and support, in this new enterprise, from the fact that they have estimated its value in exact ratio to the talents of the *counterfeit* practitioners; the *original*, as I have just stated, being rather a *rare* commodity, and the reproachful epithets of horse and cattle doctors are applied tauntingly and indiscriminately, without respect of persons, so that the intelligent and wealthy agriculturists of these United States have hitherto thought it beneath their dignity to sustain an enterprise of a questionable character. I contend that such persons have arrived at a false conclusion. If truth were on their side, I would observe silence in the matter; but I know they are at fault, and so long as I have a *tongue* to plead, and a *hand* to guide a pen, they shall never be wanting in the advocacy of an enterprise of such vital importance to the welfare of the inferior orders of creation. Sir Astley Cooper, John Hunter, and a legion host of kindred spirits of medical science in the *old* world have not thought it beneath their dignity to explore this fruitful field of research. And in the new world the decendants of the martyrs of Bunker Hill, the champions of liberty, including the elder and the younger Warrens, have been actively engaged, as you all know, in prosecuting the studies of comparative anatomy and physiology, and in dissecting and preparing specimens of nature's

handiwork for the benefit and instruction of the student. In fact many of the most distinguished physicians in this country manifest an increasing interest in the science of Veterinary Medicine and Surgery. And we are certain of their sympathies and support.

At the present day England, France and Germany can boast of an array of talent in their veterinary institutions equal to that prevailing in their medical colleges. Hence, with such examples before us, I contend it is not beneath the dignity of any man, let his station be ever so exalted, to engage in the enterprise which I am now advocating. Because a few unqualified men have palmed themselves off on the community, as qualified practitioners, is no reason why others *well* qualified should be placed in the same category. It is gratifying to know, however, that the few devoted men who have had the moral courage to brave popular opinion on this subject, and labor for a better state of things, are now reaping their reward; their services are just beginning to be appreciated, and many of those gentlemen who formerly were disposed to give us the cold shoulder, since they have had opportunities of witnessing the benefits attending a correct system of practice, are now numbered among our most firm supporters.

And now gentlemen I crave your attention for a few minutes longer in view of securing your co-operation in the enterprise that we have recently commenced. The history of all medical institutions offers abundant evidence that unless sustained by the *national* purse, or individual donations, they have, in nine cases out of ten, proved signal failures. The veterinary colleges of the old world would never have attained their present popularity, only that the national purse-strings were loosened in their favor. When benevolent Royalty condescended to patronize veterinary science the people followed suit, and the experiment succeeded. In 1636 Harvard College was as poor as a church mouse and could not boast of more than two or three students—less than we expect to enroll under our banner at this session. Up to the present time, which occupies a period of 221 years, she has received *State* aid to the amount of $216,000 dollars, being at the rate of $978 per annum. And "Williams College," from the time of its charter in 1793, to 1857, a period of sixty-four years, has received $46,500, or $726 per year. "Amherst College" was chartered in the year 1825, consequently has been in operation thirty-two years, during which time it has received $25,000, or $781 per year.

Now the Veterinary College of Massachusetts has been in operation just two and a half years. The Faculty have managed to get along and keep their school in working order, by dipping into their own pockets and thus furnishing the needful for present use. Yet it is to be hoped that *State* aid, which has been so liberally dispensed to the institutions just named, will ere long lend *us* a helping hand, so that *we* may be able to erect a college building for the accommodation of the Faculty and their pupils, and to connect therewith a suitable infirmary or hospital for the treatment of all kinds of animals. The Faculty propose also to erect a forge within the college domain, where not only the pupils, but other persons intending to qualify themselves for the duties of shoeing-smiths, can receive instruction under the auspices of men conversant with the anatomy and physiology of that complicated piece of mechanism known as the horse's foot.

An infirmary connected with this Institution will prove of vast importance to the owners of live stock, and at the same time will afford the Professor of Theory and Practice splendid opportunities for clinical instruction. In fact, an infirmary connected with our Institution might bear the same analogy to it that the Massachusetts Hospital does to the medical department of Harvard University. The benevolent rich man, who keeps horses for pleasure and enjoyment, would secure important privileges for the pets of his stable and barn, and might rest assured that no wanton barbarity nor empiricism would be practiced on them; that they would not be submitted to any unnecessary painful operation, nor have their stomachs converted into an apothecary's shop, which induces a medicinal disease oftimes more difficult to control than the original malady.

The *poor* man, as well as the *rich* — he who has but one horse, and depends on the earnings of the same for the support of his wife and children, would have claims on the Institution, and could have his sick horse examined and prescribed for without cost. For in exact ratio to the liberality of the *State*, and in proportion to the amount of donations received from private individuals, would be the liberality of those having charge of this department.

I am informed that over three thousand animals have, during the past year, been prescribed for and treated, at an infirmary connected with the Veterinary College of Alfort, in France. Many of the owners of these animals were *poor*, unable to secure the best skill: consequently the rich man, who can afford to pay, and the poor man who cannot, have equal advantages.

The knowledge acquired by students in the course of *infirmary* practice, is of a very superior order; and while they are attending lectures and studying the theoretical part of their profession from text-books, they resort to the infirmary and, under the direction of competent teachers, acquire practical knowledge which otherwise is very difficult to obtain.

And as regards what some persons in this country might consider a novel enterprise — I mean the establishment of a *forge* and shoeing shop on the college premises — a few of those who have never given the subject a thought, might ask, What benefits are to be derived from this new enterprise? The same question was put to Fulton, the great *master-spirit* of steam navigation in the New World; also to Franklin, when he, the sage and philosopher, started one stormy day, carrying a paper kite, string and key, to have a game of what some people called boy's play. He suceeded in drawing lightning from the clouds. The benefits which this simple experiment has led to, are too great for me to attempt to discuss. They are household words with us all.

It is not necessary for me to occupy your attention one moment, in view of pointing out the benefits derived from these and thousands of other enterprises which at first were considered *absurd* and *useless*. But I shall briefly refer to the benefits to be derived from an improved system of shoeing. Now, I am not disposed to scold, nor to satirize the old and imperfect methods of preparing the foot, and adapting the shoe to the same. Almost every intelligent horse-owner, however, like myself, has had occasion to deplore the very faulty and, oftimes, ruinous methods of shoeing

horses. No doubt many thousands of valuable horses are rendered unfit for the work required of them; and very many diseases are directly, or indirectly occasioned in consequence of the smith being ignorant of the anatomy and physiology of the foot. This *was* the case in England, France, Germany and Russia, prior to the advent of Veterinary Institutions.

The several reports made from time to time, by competent persons, conclusively show, that since the *light* of *science* has entered the forge and Veterinary Surgeons are employed to superintend shoeing, many diseases, hitherto very prevalent, have almost entirely disappeared. Without good feet a horse might as well be without his head; for, as the old saying is, "*No foot, no horse.*" It would require more time than I dare think of occupying on this occasion, to show the vast benefits to be derived from a correct system of shoeing. Suffice it to say, that the foot of a horse is the most complicated piece of anatomy in the whole animal economy; and it is in view of educating men to understand its wondrous mechanism, and to be able to practice on it in the forge, is the reason why I solicit the co-operation of liberal men. I would urge the Presidents and officers of State and County Societies to lend us their aid and support, and would suggest that they appropriate a portion of their surplus funds, if they have any, to the praiseworthy purpose of furnishing needy, yet worthy young men, the necessary funds to enable them to attend the lectures of this Institution. I say *this* Institution, because it is the only one in successful operation in the United States. And I respectfully call the attention of influential husbandmen to this matter, because, during the past year, I have received, in my capacity as Dean of the Faculty, about fifty letters from persons desirous of qualifying themselves as surgeons and smiths. Most of them are the right kind of men; yet destitute of means.

Now, I entreat the farmers of Barnstable County, who rejoice in the ownership of $323,465,00 worth of live stock, to consider this subject and see what can be done in view of furnishing the means to send a needy pupil from their district. I also appeal to the men of Berkshire, Bristol, Dukes, Essex, Franklin, Hampden, Hampshire, Middlesex, Nantucket, Plymouth, Suffolk and Worcester Counties, who are at the present time in possession of $16,000,000 worth of live stock, to lend a helping hand in this direction. A well educated Veterinary Surgeon, located in each of these counties, would render services of great value to the farming interest, and would certainly prevent many deaths among live stock which are now constantly occurring. An experiment of this kind has long since been tried in both England and Scotland, and the several Agricultural Societies have, with praiseworthy liberality, given encouragement and pecuniary support to their Veterinary Institutions, and on many occasions have furnished means for the Veterinary education of *deserving*, yet *poor* young men. So satisfied are the English farmers with the valuable services rendered to them and their stock, by local Veterinary practitioners, that they have lately addressed a petition to their Queen and her Parliament, praying that veterinarians may be excused from serving on juries. And just observe what are the state of affairs in the Old and New Worlds. The population of Europe and America are probably about the same—

something like 30,000,000. The Veterinary Universities of England and Scotland have probably graduated over one thousand pupils. Making allowances for the dead, dying and absent, they probably employ, at the present time, over five hundred active working men to administer to the physical wants of their live stock, which, in number, bear no comparison with that of the United States; and yet the English farmer prostrates himself at the throne of Royalty, praying that he shall not be deprived of the services of Veterinary Surgeons, even when called upon to perform the important and necessary duty of juror.

Now, reverse the picture and see what are the state of affairs in this country. The number of American graduates are but six, and their diplomas are all issued by virtue of authority from the Commonwealth of Massachusetts; and, as far as I have been able to ascertain, there are fourteen more certified surgeons from abroad, making in all, twenty. Consequently, each one of these certified surgeons has a field of enterprise inhabited by one million five hundred thousand stock-owners and breeders, who are supposed to be owners of 77,000,000 of living animals. Divide these figures by twenty, which I have said is the number of certified surgeons in America, and we find that there is but one certified surgeon to every three million eight hundred and fifty thousand of live stock. Now, should this country ever be visited by those fearful and pestilential epizootics which have prevailed in the Old World, what protection have we to offer? — How shall we guard against them, and where shall we find men equal to the emergency?

Now, gentlemen, I wish you to understand that I am not pleading poverty, nor asking alms in behalf of myself and colleagues. Our desire is to be able to extend our field of usefulness: and in order to do so, we must be put in possession of the necessary facilities. The Faculty, who are all here to speak for themselves, if they think proper, are hard working, practical men, and I righteously believe that they have accepted their appointments out of pure love for the profession, and a desire to see it flourish as in the old world.

In commencing a new enterprise of this character, it may be proper for me, at this time, to inform *you* gentlemen who propose to attend our lectures this session, and the public generally, of the facilities for instruction which our Institution affords. The Faculty are, without doubt, better qualified as practical teachers than were those persons who, in the year 1791, commenced a similar enterprise in England, under the auspices of a British nobleman, whose name is probably familiar to you. I say this, not on the score of egotism, but merely to encourage the student and to secure the cooperation of the public. It is a well known fact that the father and godfather of the national school in England, (now known as the Royal Veterinary College,) was totally inadequate to such an undertaking, and his election to a professorship was a matter of policy and necessity, as no other person at this early period, better qualified, could be found in the British realm.

I expect to be excused from saying anything regarding my own qualifications, as a teacher of Anatomy and Physiology. My duties are nothing when compared with those of my colleagues. I have the privilege, (in

view of instructing our students,) of using a costly model of the wondrous mechanism of the horse, the property of the State Agricultural Society of Massachusetts, which, together with articulated skeletons of the *horse* and *ox*, afford me ample material for illustration, which our illustrious ancestors on the other side of the Atlantic, in their early career, never expected to possess. So that I am fortunate beyond expectation.

The Professor of Theory and Practice, Dr. Charles M. Wood, is a hero of twenty-two years hard service in the cause of veterinary improvement and reform; he is here to tell his own story. I merely take the liberty to inform you that he is in possession of one of the finest cabinets of morbid anatomy to be found in the United States. And the Professor of Cattle Pathology, Dr. Robert Wood, is rich as a Jew in the possession of some rare specimens of physiological and morbid anatomy.

In regard to those important branches of our art, known as chemistry and pharmacy, I shall say nothing. The Professor of those departments, Dr. A. S. Copeman, is here, this evening, from a sister State, to give us his countenance and support, and is prepared to join in the exercises of this evening.

And now, gentlemen, it only remains for me to thank you for your kindness in attending our anniversary exercises, and for the patience you have manifested in listening to my poor apology of an hour's entertainment.

Col. Moses Newell, President of the Institute, then rose, and remarked, that in various farming communities in the State of Massachusetts, it was impossible to secure the services of educated veterinary surgeons, and, in consequence, many valuable animals were continually sacrificed at the shrine of ignorance. He stated that himself, and many opulent farmers in his vicinity, are ready and willing to encourage and employ the right kind of men, so soon as they present their credentials.

The President then introduced Professor Copeman, of Utica, N. Y., who entertained the audience with some very interesting remarks on matters pertaining to his special department; he introduced a number of familiar illustrations showing the vast yet wonderful simplicity of nature's never-ending phenomena. His remarks were listened to with marked attention.

Professor Charles M. Wood was next introduced, the substance of whose remarks were as follows:—

Mr. President, and Gentlemen: The subject of Veterinary Medicine having been so ably handled by my colleague, there is little remaining for *me* to say. But, as you have "called me out," I will endeavor, briefly to obey your summons. Not expecting to be called upon, I am not prepared to do justice to the subject. Yet, without preparation, I will attempt to show, in a few words, the importance of the science I profess to practice, and the value it bears to the community. The presence of so many gentlemen as I have now the honor to address, is a proof that it is held in high estimation by men of ability and distinction. I regret, however, to be obliged to say, that amidst the great improvements of the age, no subject has received so little attention as the advancement of Veterinary knowledge in this country. While men of the most profound learning have been engaged in the study of the different varieties of nature's work, a branch of science involving the preservation and

health of one of the most beautiful and useful animals in creation, has been, I may say, totally neglected. This is not unknown to *you*, gentlemen, nor to any persons at all conversant with the horse, either in a state of nature or domestication. But at length public attention seems to have been awakened on this subject, and, as is always the case when enquiry is aroused, ignorance and quackery have fled, or are *flying*, before the advancing light; so that we have good reason to hope that Veterinary practice may soon be rescued from the hands of ignorance and presumption, and be placed upon the same basis that its sister science, human medicine, now occupies.

Mr. President and gentlemen—the professorship of Theory and Practice of Medicine and Surgery, in this Veterinary Institute, was, in its infancy, committed to my charge. For this honor, let me assure you, I have a strong feeling of responsibility, and of deep interest in these branches of science. It shall be my duty to teach to others. I shall ever be desirous that the benefits which our profession has the power of bestowing may be extended to all animals capable of suffering. I have hitherto directed my particular attention to the diseases of the horse, but my future enquiries shall have a broader field, and, I trust, will *only* be bounded by the legitimate objects of our care. I humbly hope I shall be able to discharge my duty satisfactorily to my friends and with credit to myself, and with some degree of benefit to the profession I have the honor to represent. These ends I cannot hope fully to attain, but they shall be my constant aim. All men are not gifted with equal abilities, nor are such as we possess, independent of circumstances, yet we have, all of us, certain duties to perform, and to fill some allotted sphere of action; and although *all* men cannot arrive at the highest post, yet each can strive to obtain it.

Gentlemen, I shall continue this subject no further, at the present time, only earnestly hoping for your united aid, in promoting the progress of our Institution, and soliciting for it your patronage and encouragement.

Dr. J. V. C. Smith being present, was then invited to address the audience, and in his usual felicitous style, he amply repaid those who patiently kept their seats to the end of our protracted exercises. We are sorry that our reporter was compelled to leave the hall before Dr Smith made his remarks, for we should have been glad to have published them. There was, however, one item in the course of Dr. Smith's remarks, which we have not forgotten, and as it might operate on others to do likewise, we place it on record. The Doctor stated that he was pleased to know that efforts were now made to render the science of veterinary medicine popular, and if funds were needed to carry out the intention of the Faculty of the Boston School, he was ready and willing to put his hand into his pocket and contribute all he could spare for so praiseworthy an object.

ABSENCE OF MIND.—A man lately put a "*bit*," in his own mouth which was intended for his horse.

MARES VERSUS GELDINGS.

FARMERS generally do not seem to be fully aware of the benefits which they might derive from the use of mares, instead of geldings. Farm work for horses is comparatively light. It is slow work. They are not necessarily exposed to labor which produces heaves, founder, spavin, broken wind, etc., etc. These are all caused by unnecessary exposure, indulgence in eating or drinking, under unfavorable circumstances, or over-driving; or, by two or more of these causes combined. It is true it is necessary for horses to perform some work upon a farm, which draws severely upon their nature; but, for the most part, farm work is steady, every day work, where horses can be well fed and cared for. Consequently mares are just as good farm workers as geldings.

If such is the fact, we propose to show farmers that they should, for their own benefit, keep mares for farm work instead of geldings. With proper treatment, a good breeding mare will bring a colt every year, without interfering materially with the operations of the farm.

If the necessary pains has been taken to secure the services of the best stallion, the colt will be worth, when a year old, one hundred dollars; and, by the time he is old enough to use, he should be worth two hundred dollars. Well, if the colt is worth one hundred dollars at a year old, and the service of the horse costs twenty dollars, it leaves eighty dollars for the use of the money invested in the mare, as her labor will certainly pay for her keeping. Now, if the mare is worth two hundred dollars, the eighty dollars would pay forty per cent. interest annually upon the investment, which is far better than loaning money at three per cent. a month, as there is, in this case, no usury law for debtors to avail themselves of; and then there is no more risk in the mare than there would be in a gelding, nor so much, even. This is only the profit of one year.

The same can be done for a succession of years. And you can just as well keep a span of mares on your farm, and, after two or three years, have a span of fine horses to sell every year, as to keep a lot of stock which will neither increase in number or value.

Now, if you keep geldings, they are not so hardy naturally, we think, and do not live so long, and when once done with work, are of no manner of account to any one, and mercy requires you to knock them on the head. On the contrary, when your mares are advanced somewhat in years, or if they become lame from any cause, you can still, under ordinary circumstances, make them of great service to you by raising colts.

But, there are certain kinds of labor which the gelding is better adapted. They are generally, we think, more fleet, and consequently better fitted for roadsters. They are also possessed of more muscular power, and, consequently, better fitted for heavy draughts.

We could find many purposes to which geldings are better adapted than mares. We would, therefore, advise not only farmers, but all who do not severely task their horses with labor, to keep mares by all means. We would also advise them to obtain the best mares, and the services of the best stallions, as the colts will sell for enough more to doubly pay the trouble and expense. And, besides the profit to the raiser of horses, the community would be benefitted by an increase in number, and a decrease in the price of horses in a few years.

A farmer who keeps only two horses, and both geldings, will be compelled to purchase a team of some one else when his is done with work; whereas, if his team is composed of mares, he is preparing a team to take their places, when they are turned out to take their rest, either on account of old age, or for any other cause.

Farmers should keep as little non-producing stock around them as possible. Everything should be made to pay the best possible per centage, with fair usage. Then, we say to farmers, sell your geldings and purchase mares, and see if our advice is not good in the end.— *Northwestern Farmer.*

LORD SPENCER'S RULES FOR THE SELECTION OF MALE ANIMALS FOR BREEDING.

The first things to be considered in the selection of a male animal are the indications by which it may be possible to form a judgment as to his constitution. In all animals a wide chest indicates strength of constitution, and there can be no doubt that this is the point of shape to which it is most material for any breeder to look in the selection either of a bull or a ram. In order to ascertain that the chest of these animals is wide, it is not sufficient to observe that they have wide bosoms; but the width which is perceived by looking at them in the front should be continued along the brisket, which ought to show great fulness in the part which is just under the elbows; it is also necessary that they should be what is called *thick* through the heart. Another indication of a good constitution is, that a male animal should have a masculine appearance: with this view a certain degree of coarseness is by no

means objectionable, but this coarseness should not be such as would be likely to show itself in a castrated animal, because it thus might happen that the oxen or wethers produced from such a sire would be coarse also, which in them would be a fault. Another point to be attended to, not merely as an indication of a good constitution, but as a merit in itself, is, that an animal in itself should exhibit great muscular power, or rather that his muscles should be large. This is an usual accompaniment of strength of constitution; but it also shows that there will be a good proportionate mixture of lean and fat in the meat produced from the animal, the muscles being that part which in meat is lean. A thick neck is, in both bulls and rams, a proof of the muscles being large; and there can hardly be a greater fault in the shape of a male animal of either sort, than his having a thin neck. I am inclined to say, that in the new Leicester breed of sheep, which is the breed to which I am accustomed, a ram's neck cannot be too thick. Other indications of muscle are more difficult to observe in sheep than in cattle. In a bull there ought to be a full muscle on each side of the back bone. just behind the top of the shoulder blades; he ought also to have the muscles on the outside of the thigh full, and extending down nearly to the hoof. It will seldom happen that a bull having these indications will be found deficient in muscle.

As I am writing for the use of farmers, it is quite unnecessary for me to attempt to give a description of what is considered a well-shaped bull or ram; it is also obviously impossible to express in words what is meant by good handling: it is sufficient to say, therefore, that no small animal is fit to be used at all as a sire whose handling is not good, and that the more perfect his shape is, the better.—*The Farmer's Herald.*

SEVERAL CASES OF FRACTURE.

CONTRIBUTED FOR THE "VETERINARIAN," BY R. P. FOSTER, SPALDING, ENGLAND.

Having seen in some of the past numbers of *The Veterinarian* several cases of fracture, I am induced to send you a case or two that have occurred in my practice.

On the 13th of April, 1853, I was requested to see a three years old mare that had, two days before, fractured her shoulder. The accident happened in the stable, but no account of it could be given by the groom, unless that it was done by the animal getting across a bar which parted the stalls. She was visited the morning after the accident had occurred by a member of the profession, who considered the case a hopeless one. The owner not feeling satisfied with this opinion was the cause of my visit. On my arrival

I found the humerus to be fractured, and the shoulder enormously swollen. I could therefore give the owner but little hope of cure, and told him further, that it would be attended with a great expense. He said he did not mind that, if I would undertake the case. I therefore did so, and had the animal at once slung in the stall by means of a pair of wagon shafts, which I have often found to be a very convenient plan of slinging horses; subdued the inflammation as quickly as possible by the frequent application of cooling lotions, and, as nothing could be done with splints or bandages, I supported the leg as well as I was able, and left nature to do the remainder. At the end of five weeks my patient became tired of her situation, and one day got her head at liberty, and extricated herself from the slings a little before I intended she should. The parts being of course very weak, by her favoring the limb, the sinews became contracted, so much so that she could scarcely get along her leg, which was much bent. Then came tendiotomy to our aid. After having had the mare cast, I divided the flexor tendons, and placed the leg straight. The ends of the tendons, by this act, were three or four inches apart. I then had an iron attached to the shoe by means of a staple, which I could remove at pleasure, and had her again placed in her stall, but not in the slings, although afterwards I thought it would have been better, as she got to lie down with her iron on during the latter part of the time. I saw the mare the other day, and no one could tell that anything had been the matter with her except that a little thickening remained where the tendons were divided. She is in foal, and her owner says she works as well as any horse he has got. This is the second case of fractured shoulder I have at work, but the first being fractured in a different place, caused the mare to step short for about six months after resuming her work.

Another case which I might mention was a mare that ran away on taking fright at a donkey, and, not being able to turn a corner, went across a grip where there was an old thorn hedge on the other side, and trying to stop herself, her fore feet went with such force against the stumps of the hedge that one of the bones of the knee was fractured. I was attending another horse at the time upon the farm, saw it done, and was quickly on the spot. With some difficulty I got her to the stable, put her in slings at once, splintered and bandaged the part, and applied a lotion. When she recovered the knee was larger than the other, but she worked well for several years after, and then died very suddenly; I should think from some affection of the heart, although I had no chance of seeing her, as she was well at night, and dead in the morning.

The fourth and last case I shall allude to, was a bullock, who, when the owner was applying a dressing for lice, jumped at the

gate, and got his hind leg fast between the bars, and fractured the metatarsus just above the fetlock. I was immediately sent for. When I arrived I at once saw what had taken place, but the animal being very wild, I could not come near him. Every time he stirred the ends of the bones could be heard grating against each other. Indeed, I was afraid the bones would come through the skin before I could get a boot made, which I lost no time in doing. I had it made of very stout leather, ten inches deep, and wide enough to admit of tow and a bandage, and to lace on the outer side of the leg. I then had two iron bands, three quarters of an inch wide, and a quarter of an inch thick, rivetted to the boot, about an inch and a half from each other, and reaching two inches below the leather, with holes for a strap. After lacing the boot, I placed a bandage round it, and then the strap, which brought the foot into the right position, where it remained until well, which was in a very few weeks, and with little trouble, as the animal was left almost to take his chance.

Remarks.—I am quite aware that many cases of fracture would not repay the owner for the trouble and expense incurred; but, if the animal be young and valuable, it would be always worth a trial. We had an entire horse that travelled with us for several years, that was known by the name of "the broken-thighed horse." The accident happened when he was young. It generally happens, however, that before we are called in it is too late; at least such has been the common case with me. I have been in practice fifteen years, and have had as many cases of broken bones, but am sorry to say that I was not always so fortunate as to arrive just before the bones became separated; and frequently I have found the ends thereof through the skin, and the surrounding parts so lacerated that the animal has been destroyed at once by my advice.

ACCOMMODATION FOR HORSES.

Now that the Winter is approaching, we have a few words to speak in behalf of that noblest, and most abused of our domestic animals, the horse. That sign, which used to hang out upon country taverns of the old school, "Accommodation for man and beast," was usually a great fraud upon the public, at least in the latter part of its promise. The accommodation for the horse was generally a narrow stall, in an over stocked stable, with a hard plank-floor, and a mere apology for a bed of straw. Here, after a long day's work upon the road, old Dobbin was expected to refresh his weary limbs. The thing was impracticable in that atmosphere, foul with the breath of twenty other tired horses, and with the effluvia of ammonia coming up from the saturated floors; and upon those hard planks, where

the weight of the horse made a firm pressure upon the wearied muscles, as he lay down to sleep. There was no chance for that relaxation of the muscles, which is as necessary to the brute, as to the man.

At home, the horse was little better off, except that the stable was not full of horses, and he had a better atmosphere to breathe. There was the same hard bed, and the same pungent smell from the filthy floors. Not one horse in a hundred is properly accommodated in the Winter. In the Summer when turned out to pasture, they resume their natural habits in some measure, and regain that health which is so often lost in their Winter confinement. The benefit of the Summer pasture, which is universally conceded by all who have any acquaintance with this treatment, is not more owing to the change of food, than to the change of atmosphere and bed. The horse, in his native condition breathes the pure air of the prairies, and has under his hoof continually the soft turf. When he lies down, it is upon a bed of grass which yields to the pressure of his body, and puts every muscle at ease.

Now, we believe, that all the conditions of the pasture, can be supplied to the horse in his stable, and that he can be kept in the highest health and spirits, in the barn, the year round. We speak now of horses upon the farm, where green fodder is accessible for a part of the year. In the city though their condition might be ameliorated, it can not be entirely remedied. Nature gives us the needful hints, if we will but heed her voice.

The horse can have as pure wholesome air in the barn, as he has upon the prairie, without any exposure to the keen winds and storms that assail him in his natural state. Barns are generally constructed, without any attention being paid to ventilation. The walls are nearly tight, and not unfrequently the supply of hay is stored in the mows over the stables, so that all the foul odors, escaping from the lungs and bowels of the horse are absorbed by the hay, until it becomes unfit for food. He is compelled to breathe over, many times, this foul air, and finds no relief except when he is taken out of the stable. Is it any wonder, that horses become diseased under this treatment, and die prematurely?

A barn should be constructed with ventilators, of a size corresponding to the number of animals it is designed to accommodate, so that the air will be changed as fast as it is breathed. This can be done so that the animals will not be exposed to currents, or suffer from any undue degree of cold.

Again we can prepare a bed in the stable quite as comfortable, as any the horse finds in his grassy pastures. The best bedding we have ever found for a horse, is a coat of dry peat, muck or sods, covered with straw. It should be a foot thick, and the drier the better. This

makes a soft warm bed, and while it accommodates the horse in the best manner, it furnishes in the course of the year an enormous quantity of manure. The straw, and the solid fœces are removed every morning, and all the liquid is immediately absorbed. The stall should be at least six feet wide, and about a half cord of muck will make a good bed. This will last nearly two weeks before it becomes so saturated as to emit the smell of ammonia. A horse stable should always be as sweet as a parlor, and it is a constant waste for a man ever to have it otherwise. Of course, it requires more labor to furnish a horse with these accommodations, but we know from our own practice of several years, that the labor is abundantly paid for, not only in the health of the horse, but in the manure made by this process. We are confident that no farmer, who adopts this plan and learns its advantages, will ever abandon it.

We have lately seen stables constructed with deep cemented pits under the horse, instead of a plank floor. The pits were four or five feet deep, and would hold perhaps two cords of muck or loam. They were filled with loam to the ordinary level of the floor, and the horses stood directly upon the loam, having a bedding of straw, of course, at night. The advantages of the pits are, that they save the expense of flooring, and the muck does not need removing so often. Such stables, of course, have to be upon the ground floor of the barn, and cannot be had in all cases.

The bed of muck well covered with straw, and the ventilaiton, are the things of chief importance, and these are within reach of nearly all farmers. Attention to these things would add greatly to the power of their horses, and to their own pecuniary advantage.—*American Agriculturist.*

THE LADIES ON HORSEBACK.

It is a pity, that our city *belles* cannot be persuaded to adopt a new system of hygienic tactics and instead of seeking *amusement* at fashionable places of resort, endeavor to seek *health*, (which many of them are strangers to) in the open air, on the back of a noble horse. There is no exercise which so directly conduces to health or brings into play a class of muscles, otherwise inactive, as regular feats of equestrianism.

Aside from the question of *health*, we conceive it a matter of *policy* for the ladies, especially the unmarried ones, to become equestrians, for no unmarried gentleman can be expected to resist the peculiar influences of love on horseback, the *odds* are too great. In a late number of the *California Farmer*, the following language occurs, which goes to show, that a woman on horseback commands a sort of magnetic attraction which none can resist.

Maj. Gen. Report says, "some six thousand persons were in at-

tendance at the Central Race Course, to witness the competition among the Ladies for the prizes offered." We regretted very much to be deprived the pleasure of attending, but duty claimed our services elsewhere, and our reporter furnishes us the data which will enable us to give our readers the state of the case. We have always acknowledged the "influence of woman," but we had hardly dreamed that some half a dozen ladies in the saddle, could control a whole city, and lead an army of six thousand people, yet such was the fact; for at early morning the city that was full began to be depleted, and every moveable vehicle and almost every moveable creature, seemed to be on the route to the Race Course; and long before the hour of starting the building designed for the Committee's stand, and other places, were crowded with ladies, the committees and guests—it was estimated there were over a thousand ladies present—and every disposable place for coach, carriage, stage, saddle-horse, or standee, was occupied. One dense mass of living, gazing creatures, all bent on sport. Six ladies, and a little girl of eight years of age, presented themselves before the stand, to contend for the prizes. At the appointed hour the signal was given, and the steeds with their gay and joyous riders were coursing round the track. Mrs. Grattan of Stockton, took the lead and maintained it, and came in one length ahead. Miss Stevens was second to the stand, but in the race she lost her hat; and though it may have checked her for a moment, she appeared most charmingly in her flowing locks and most graceful riding.

Miss Stevens appeared a second time upon the ground, and rode without saddle or blanket, and her style of managing and mounting her horse without aid, the easy and grateful style with which she vaulted into the saddle, brought down rapturous applause. The feats she performed we do not believe can be accomplished by any other lady on this coast.

Mrs. Evans and Miss McDonald received many complimentary notices, by their graceful riding, and the ease and skill with which they guided their horses. The young Miss of eight years, was much applauded for the dexterity with which she saddled and bridled her horse without aid.

The race for speed was won by Mrs. Grattan, but as the Judges were called upon to decide upon the *most accomplished rider*, the Committee, taking all the varied performances together, made the following awards:

To Miss Stevens, of Sacramento, the first prize—a Saddle, value $75.

To Mrs. Grattan, of Stockton, the second prize—Silver Plate, value $30.

To Miss Phelps, the little Miss of eight years of age, the elegant riding whip, value $10.

The general interest and excitement of this Equestrian performance added much to the general interests of the Fair, and no preceding one has drawn out so large a concourse of visitors to witness it. Each rider won credit and applause, and the whole scene was a pleasurable one.

HINTS FOR THE FARMER.

Dig your potatoes when the ground is dry; you can then gather them free from dirt, then stow them away under cover, where the frost will not touch them.

Toads are the best protection of cabbage against lice.

Plants, when drooping, are revived by a few grains of camphor.

Sulphur is valuable in preserving grapes, etc., from insects.

Lard never spoils in warm weather, if it is cooked enough in trying out.

In feeding corn, sixty pounds ground go as far as one hundred pounds in the kernel.

Corn meal should never be ground very fine, it injures the richness of it.

Turnips of small size have double the nutritious matter that large ones have.

Rats and other vermin are kept away from grain by sprinkling of garlic when packing the sheaves.

Money expended in drying land, by draining or otherwise, will be returned with ample interest.

Timber, when cut in the spring, and exposed to the weather with the bark on, decays much sooner than if cut in the fall.

Wild onions may be destroyed by cultivating corn, plowing and leaving the corn in the plowed state all winter.

PRESSURE IN THE HORSE MARKET.—"The New York Tribune," states that the derangement of the money market has had a most disastrous effect upon the market for horses. Horses which cost their owners seven hundred and fifty dollars were sold lately for one hundred and seventy-five dollars in that city. Another horse, which a year ago had a standing offer of one thousand five hundred dollars was sold for three hundred dollars; and a handsome bay, for which six hundred dollars was paid last summer, and not considered dear at that, brought but one hundred and twenty five dollars a few days ago.

THE HON. EDWARD EVERETT ON VETERINARY SCIENCE.

The Hon. Edward Everett, in his late address delivered before the New York State Agricultural Society at Buffalo, thus alluded to Veterinary Science.

"Among the most prominent *desiderata*, in what may be called animal husbandry, may be mentioned an improved state of veterinary science in this country. While the anatomy of the lower animals is substantially the same as man's, their treatment when diseased, or overtaken by accidents, is left almost wholly to uneducated empiricism. It rarely, I may say never happens, that the substantial farmer has not considerable property invested in live-stock, to say nothing of the personal attachment he often feels for some of his favorites—horse, or cow, or dog. But when their frames, as delicately organized and as sensitive as our own, are attacked by disease, or they meet with a serious accident, they are of necessity in most parts of the country committed to the care of persons wholly ignorant of anatomy and physiology, or imperfectly acquainted with them, and whose skill is comprehended in a few rude traditionary operations and nostrums. There are few of us, I suppose, who have not had some painful experience on this subject, both in our pockets and our feelings. The want of veterinary institutions, and of a class of well-educated practitioners, is yet to be supplied."

SALE OF SHEEP IN CALIFORNIA.

We are informed by the '*California Farmer*,' that a sale of Merino Sheep, imported in the British bark Sebastopol, took place at Macondray's yard, lately, but was not as largely attended, nor were the Sheep as good, or the bidding as spirited, as at some former sales. These sheep were of good stock and very fine wool, but the prices at which they sold were low. We think if a more extended notice were given of such sales, purchasers from the country would attend. Lots 17 and 18 were in thin condition. The following are the prices at which they were sold:

1	Buck	and 7	Ewes	$22 50	5	Bucks	$27 00
3	do	60	do	15 00	1	do	22 00
1	do	20	do	14 00	1	do	26 00
1	do	20	do	13 50	2	do	25 00
1	do	20	do	14 50	15	do	21 00
1	do	20	do	14 00	1	do	20 00
		8	do	12 50	1	do	19 00
1	do	17	do	11 00	1	do	18 00
1	do	18	do	9 00	1	do	16 00
		8	do	14 00	1	do	15 00
1	Buck			35 00			

TO MANAGE A REARING HORSE.

Whenever you perceive a horse's inclination to rear, separate your reins and prepare for him. The instant he is about to rise, slacken one hand, and bend or twist his head with the other, keeping your hands low. This bending compels him to move a hind leg, and, of necessity, brings his fore-feet down. Instantly twist him completely round, two or three times, which will confuse him very much, and completely throw him off his guard. The moment you have finished twisting him round, place his head in the direction you wish to proceed, apply the spurs, and he will not fail to go forwards. If the situation be convenient, press him into a gallop, and apply the spurs and whip two or three times severely. The horse, will not, perhaps, be quite satisfied with the defeat, but may feel disposed to try again for the mastery. Should this be the case you have only to twist him etc., as before, and you will find, that in the second struggle, he will be more easily subdued than on the former occasion; in fact, you will see him quail under the operation. It rarely happens that a rearing horse, after having been treated in the way described, will resort to this trick a third time.—*British Sportsman.*

LONGEVITY OF ANIMALS.

A writer (Mr. R. Evans,) in the Philadelphia Medical and Surgical Journal observes.

To begin with the higher order we take Man. Now suppose 100,000,000 of souls inhabit the world, and allow 30 years for a generation, the deaths for each year would be 30,000,000, of each day 82,153, of each hour 3,442; the number of deaths to the number of births (excepting time of war) as 10 to 12, there are born every year 36,000,000, every day 900,569, every hour 4,107.

On this calculation, if man had not been doomed to die, there would be at present about 713,000 billions more on the earth, and yet a space remain of 9,110 square feet of earth for each.

For every 1,000 men 28 die off annually; of 200 children not more than one dies in the birth; of 100 one does not die during the mother's lying-in; of 1,000 infants fed by means of mother's milk, not above 300 die—but of this number by wet nurses 500 annually; convulsion and teething kill the greater number.

It appears by the London Register, amongst 3,125 who die, there is but one person of 100 years.

The astonishing longevity of the Antideluvians has ever been a matter of surprise—it is conjectured by some it has been caused by the difference in the chronology of those times—their year equalling our lunar month, but this appears to me incorrect, seeing as we are told, "That Man's days were shortened for his great wickedness."

There are recorded in Europe some instances of great longevity, Henry Jackson, a native of Yorkshire, who lived to 169 years; James Banks 152, Thomas Parr, Shropshire, 152; the Countess Desmond, Ireland, 140 years, with others.

The longevity of the lower order of animals is strikingly singular, and to some may be interesting. The average life of the Elephant is from 150 to 200 years; Camel, from 50 to 60. The following domiciliated animals average as follows:—The Horse from 25 to 35 years, the Ass 25 to 60, Dog 15 to 25, Bull 30, Hog 20, Cow 20, Ox employed in agriculture, 18; Cat 18, Sheep 10, Goat 10.

Of Birds—The Parrot averages from 100 to 126 years, an Eagle 100, Swan 100, Goose 50, Sparrowhawk 40, Lark 16 to 18, Canary Bird, if it breeds, 10 years, if it does not couple, 24; Hen 10, Peacock 24.

Of Fish, the Carp, 150 years, is the longest liver known; Tortoise 100; Crocodile 100; Pike 100; Crayfish 20."

THE AMERICAN HORSES IN ENGLAND.

THE VICTORY OF PRIORESS AND THE FILLY BELLE.

In our last we briefly announced the triumph of Mr. Ten Broeck's mare Prioress, since which time, Mr. Ten Broeck's has obtained another victory, the following account of which occurs in "Bell's Life."—

Wednesday, Oct. 14.—*Mr. Ten Broeck's Belle in the Bedford Stakes.*—The next event to be decided, was the Bedford Stakes, and appropriately enough the race was, so far, regarded as a "certainty" for the noble duke after whom it was named, that many bookmakers turned round, and laid 7 to 2 and 3 to 1 on Killigrew; whilst others, from an idea that there was little chance of getting back the money they dropped on La Fille du Regiment, declined to bet upon it. The "glorious uncertainty," however, was again exemplified, and the truth of the old adage, "it never rains but it pours," borne out in the defeat of the favorite by Belle (purchased by Mr. Ten Broeck at the Rawcliffe sale last year), whereupon the success of the red and white over the purple and buff "stripes," of his Grace of Bedford, created almost as great a sensation as when Fordham bore them in triumph on the American mare for the great event yesterday. Belle caught the whip a long way from home, and struggled with such extraordinary gameness that Fordham literally rode Pettit out of the race at last. The latter, moreover rode contrary to orders, it appears, and was severely reprimanded by Admiral Rous, who severed his further connection with the stable by ordering the jockey to deliver up his cap and jacket at once.

The following is a recapitulation:

The Bedford Stakes of $250 each, h ft. for two year olds; colts 119 lb., fillies, 116 lb; those by stallions or out of mares which never produced a winner allowed 3 lb; winners of sweepstakes amounting to $2500, with 10 subs. or upwards 7 lb; all other winners of sweepstakes or plate 3 lb. extra; weights accumulative up to 10 lb.; to start from the Ancaster Post, and finish at the Duke's stand; 9 subs.

Mr. R Ten Broeck's b f Belle, by Slane, 113 lb. G. Fordham 1
Duke of Bedford's Killigrew, 119 lb. (including 3 lb. extra) Pettit 2
Lord Exeter's Azalia, 113 lb. Norman - - - 3

Betting: 3 to 1 on Killigrew. Azalia made play for half the distance, when the running was taken up by the favorite who was caught by Belle in the last dozen strides, and beaten in a canter by a length; three lengths between second and third. Ran in 1 min. 26 sec.

DEATH OF PRIOR.—This celebrated race-horse did not long survive his companion, Lecompt, whose death we chronicled last month, Prior was supposed to be the best horse Mr. Ten Broeck took to England, but alas he has gone the way of all horse-flesh. Prior died of an attack of pneumonia.

A SONG OF THE CAMP.

A CRIMEAN INCIDENT.

Bayard Taylor, who as the papers informs us, has lately committed the awful deed of matrimony; for which crime he has been arraigned at the court of Hymen, and sentenced to transportation during the life period of a certain lady. The plaintiff in the case, was called upon for a song, which we propose to offer in mitigation of his sentence.

"Give us a song!" the soldiers cried,
The outer trenches guarding,
When the heated guns of the camps allied
Grew weary of bombarding.

The dark Redan, in silent scoff,
Lay, grim and threatening under;
And the tawny mound of the Malakoff
No longer belched in thunder.

There was a pause. The guardsman said:
"We storm the forts to-morrow;
Sing while we may, another day
Will bring enough of sorrow."

They lay along the battery's side,
Below the smoking cannon—
Brave hearts, from Severn and from Clyde,
And from the banks of Shannon.

They sang of love, and not of fame;
Forgot was Briton's glory;
Each heart recalled a different name,
But all sang "Annie Laurie."

Voice after voice caught up the song,
Until its tender passion
Rose like an anthem, rich and strong—
Their battle-eve confession.

Dear girl, her name he dared not speak,
Yet, as the song grew louder,
Something upon the soldier's cheek
Washed off the stains of powder.

Beyond the darkening ocean burned
The bloody sunset's embers,
While the Crimean valleys learned
How English love remembers.

And once again a fire of hell,
Rained on the Russian's quarters,
With scream of shot, and burst of shell,
And bellowing of the mortars.

And Irish Nora's eyes are dim,
For a singer, dumb and gory:
And English Mary mourns for him
Who sang of "Annie Laurie."

Ah, soldiers to your honest rest
Your truth and valor bearing,
The bravest are the tenderest—
The loving are the daring.

"ROARING"

Roaring is a loud grunting sound made by the animal during the function of respiration: it is caused by some impediment or impediments existing in the respiratory apparatus, namely, either in the nostrils, larynx, windpipe (trachea), or the air-cells of the lungs. This abnormal sound among horsemen has received, from the different degrees of sound uttered, the following names—grunting, wheezing, whistling, trumpeting, and high-blowing.

Percivall performed the following experiments: He tied a piece of tape moderately tight around the windpipe (trachea) of a horse, and caused the animal to trot, when it roared; next the pipe was compressed to about half its natural calibre, when the animal during the trot whistled; at last the tape was drawn quite tight, upon which the animal staggered, fell, and struggling violently, died of asphyxia. From these experiments we learn that a slight diminution of the area of the windpipe causes roaring; still further diminution, whistling; and a degree of constriction beyond, this causes death.

On carefully listening to the grunt of a roarer, it will appear that the sound is produced during the act of inspiration and not that of expiration; and yet, under circumstances of distress, when the animal has been hard galloped, the grunt can be detected during expiration. If a roarer be trotted up hill, he will soon give evidence of the disease; and it is stated, if suddenly threatened with the stick, he will give utterence to the unmistakable grunt. This last test is not to be relied on, as I have observed notorious roarers, when so practiced on, give neither grunt or any symptom whatever of roaring. Lastly, the protracted grunting after coughing is also, to the experienced ear, characteristic of this disease.

There are many causes of this disease, which would not be understood, related, except by the veterinary surgeon; for which reason I shall only mention some of the causes which tend to set up and oft-times render this disease permanent. I refer to the strap around the throat used in order to prevent the animal from crib-biting, and to the unnecessary use of the bearing rein: the former constricting the area of the windpipe; the latter placing the neck, and with it the windpipe, in an unnatural position.

In order to be the better understood I will briefly narrate the anatomy of the windpipe. The windpipe is composed of rings of elastic cartilage, which overlap one another, connected together by an intermediate *fibro-ligamentous* substance, which in effect constitutes a joint between each ring, giving flexibility, whereby it elongates on the elevation and contracts on the depression of the head.

The strap above mentioned, when around the horse's throat compresses the rings, not allowing them to perform their respective

functions; and, on account of its continued interference and pressure, the rings become fixed together, lessening the area of the windpipe one of the causes of roaring.

The bearing-rein also, by placing the horse's neck in an unnatural position, and with it the windpipe, and from long and continued application of the evil, causes fusion of the rings. Here again the area of the windpipe is diminished, and the animal roars as a consequence.

I would advise all horsemen never to use a strap around the throat to prevent cribbing, and never except when it is impossible to do without, to use a bearing-rein. Imagine a man standing or sitting for three or four hours consecutively with his head held down, and, besides, having to perform great physical exertion with his head in the same position. I say, if it is cruel to a man, it is cruel to a dumb creature. When any member of the body fails accidentally to perform its part, the others do all in their power to help it: for instance, when a horse falls, the first move the animal makes to get up is to swing his head up; but with a bearing-rein on he cannot do so—he is literally held down and foiled in his first effort to raise himself, by the cruel and improper aplication of a foreign force.

Other causes, such as tumors, dilatation of bones, paralysis of the muscles which dilate the laryngeal opening, can only be discovered and treated by qualified veterinary surgeons; therefore I shall say nothing about them.

Suppose a race horse a confirmed roarer, having been previous to the disease, entered for some event, and his chance of winning, if sound, considered good: I would recommend the performance of the operation called tracheotomy, which is the removal of a portion of two rings of the windpipe, and in their places substituting a small, tube in order to allow the free ingress and egress of air; in fact to make an artificial opening, in order that the animal may the more easily perform the acts of respiration. It would be useless, if not dangerous, for an amateur to perform this operation; It can only be performed by a veterinary surgeon. I mention it, firstly, as it has never been to my knowledge, performed on a horse before his race; and, secondly, as it is likely to be attended with a desirable result.

Roaring hereditary.—That a mal or peculiar conformation of parts may be transmitted from parent to offspring I admit, in the same way as a wen in the throat of a parent may be transmitted to the child: but I do not believe in the notion that a morbid action is capable of being conveyed from parent to offspring.

In conclusion, avoid the use of straps and bearing reins, and all mechanical appliances which tend to keep the neck in an unnatural

aud restricted position. You will then do much to prevent the disease. "Prevention is better than cure." When it is once set up, the most skilful are often foiled in attempts to cure.—*Porters Spirit.*

MISCELLANEOUS.

ARREST OF A BRUTE.—A fellow named Roswell Saltonstall was arrested in Greenville, Smithfield, last Friday, charged with cutting out the tongue of a horse. The crime was committed some months ago, and the culprit has eluded arrest till now. He was committed to jail for trial in December. Cast the fellow, and castrate him.

LONGEVITY OF COWS.—A friend from Milton informs us that a lady of that town owns three cows, which constitute her whole stock of cattle. One of them was raised on the farm, has always been owned by the same person, and is known to have been twenty-four years old last March. The ages of the other two are not precisely known, but one of them was purchased in 1839 and the other in 1840; consequently, each of them must now be over twenty, and probably twenty two or three, making the united ages of three cows owned by the same person, nearly or quite seventy years.—*Ploughman.*

MULES AT THE ST. LOUIS FAIR.—The exhibition of mules at the St. Louis Fair was said to have been the finest ever seen in this country. Mr. Adams, of Clay county, Missouri, bore off ten premiums of the aggregate value of $250. His matched mules, four years old, were elephantine fellows—seventeen hands high, of remarkable breadth, with the finest of shoulders and hind quarters, as symmetrically formed as a fine horse, easy trotters, docile, and worth any fancy price their owner might place upon them. Under the class of saddle mules, Mr. Adams exhibited a beautiful animal, nearly black, having three gaits, to which he was well broken, a trot, pace and canter. In size, he was less of a mammoth than the others, but large enough, and well suited to the saddle or buggy, quick in his motions, graceful and perfectly manageable. Mr. Adams, exhibited him in a buggy, showing a square speedy trot, that would roll a buggy along at the rate of ten miles per hour.—*Prairie Farmer.*

TIME OF THE CESAREWITCH.—We disagree with our correspondent, "Censor," in his opinion that the pace of the Casarewitch was anything but good. The distance was two miles 468 yards, and it was run by Prioress in 4 min. 9 sec., the first heat, and 4 min. 14 sec., the second. This gives a rate of 1 min. 50 sec., for the first heat, and 1. 52 for the second heat. We regard this as good time in any country and on any track, though it does not quite equal the 1.45 of Prioress on the Metairie track, in 1856. There is some difference, however, between the drag of a single mile, and two miles and 468 yards.—*Porter's Spirit of the Times.*

EDITOR'S DRAWER.

We have received from Messrs. Crosby and Nichols, of this city, a copy of "Illustrated Annual Register for 1855-6-7, of *Rural Affairs*; *a practical and copiously Illustrated Register of Rural Economy, and Rural Taste, including* Country Dwellings, Improving and Planting Grounds, Fruits and Flowers, Domestic Animals, and all Farm and Garden Processes. By J. J. Thomas, author of the "American Fruit Culturist, &c., &c., vol. 1, Four Hundred and Forty Engravings." Published at Albany, New York, by Luther Tucker, and Son.

This work is got up in a very superior manner, it contains a large amount of *original* matter, and the illustrations are excellent. Just about this time it would be a very appropriate present, to a lady or gentleman, as a new year's gift.

To the above Firm we are also indebted for a copy of "The Illustrated Annual Register of Rural Affairs for 1858, with 130 Engravings," price twenty-five cents. Published, also, by Luther Tucker & Son, editors of "The Country Gentleman;" it is prefaced with an excellent Almanac, calculated by a gentleman of acknowledged merit, all our subscribers do, certainly need an Almanac, and if they are not already supplied, we advise them to order one from either of the above sources.

"The American Journal of Insanity," edited by the Medical officers of the New York State Lunatic Asylum." This Journal is published quarterly, on the 1st of July, October, January, and April. Price, two dollars and fifty cents a year.

We are in receipt of No. 2, Vol XIV, of this excellent quarterly, which abounds in some very meritorious articles, on the homicide of insanity; considerations on the reciprocal influences of the physical organization, and mental manifestations; cases illustrating the pathology of mental disease; the pathology of insanity, &c., &c. Gentlemen interested in these matters can see a specimen number of this "Journal" at our office.

"The North American Medical Chirurgical Review," pays us regular "bi-monthly" visits. It is a work, which even in these hard times, no medical scholar nor aspirant for medical celebrity, let them be ever so poverty stricken, that can afford to dispense with it. The subscription price is four dollars per annum; postage free to all who pay in advance. We notice that the publishers, with their proverbial liberality, have concluded to add to each number of this journal thirty two pages, to be devoted principally to an analysis of the progress of American medicine and Surgery for the preceding year.

NOTICE TO SUBSCRIBERS.

In our last issue we requested delinquent subscribers to forward the pay for the present volume, yet very few have have responded to our call for money: hence the publisher is a *looser* instead of a gainer, yet we hope that ere this number is distributed to our patrons we shall be informed that all have paid up.

Hereafter the publisher intends to adopt the payment in advance system; consequently the Journal for 1858 will only be sent to those persons who forward their subscriptions prior to the first of January, 1858.

If each one of our subscribers will constitute himself a committee of one to procure subscriptions, and only succeed in procuring one subscriber each, they will confer on us a great favor.

The following sensible remarks on the subject of pre-payment, which is clipped from one of our exchanges, is respectfully submitted to our subscribers: —

"No subscriber worth retaining, will object to the payment in advance system. Those who wanted to hear Jenny Lind sing had to pay in advance, and what were her divinest strains compared with those which flow from the editorial pens?

"You cannot take your seat in a rickety mail coach, or go from the track of a railroad car, without paying in advance for the risk of being killed.

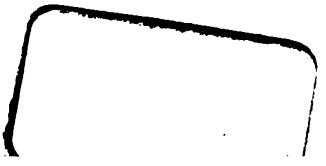
"If you would hear a concert or literary lecture, or see Tom Thumb or the Siamese Twins, you must plank down your twenty-five or one hundred cents before you can pass over the threshold. And yet men hesitate and cavil about paying in advance for a paper on the very brink and utmost verge of prime cost."

ERRATA.—On page 335 of Nov. No. 7th and 12th line from bottom of the page for "*marganic*" read margaric; for *olive* acid read oleic acids. These errors occur in an article on Cod Liver Oil, written by Dr. Copeman. Typo is the sinner, yet such inaccuracies will occur, even among the best educated "*devils*."

In London, the East India Company has advertised for tenders for 20,000 hogsheads of pale ale and porter, to be sent to Bengal, for the use of the army.

A young widow who edits a paper in a neighboring State, says— "We don't look quite as well as usual to-day, on account of the non-arrival of the mails."

41C
736



U. HOLZER

3 2044 081